

# PRICE VERSUS BRAND

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## ASSESSING THE ROLE OF PRICE AND BRAND IN LOW-INCOME CONSUMER DECISION-MAKING

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“Life is a sum of all your choices.”

(Albert Camus)

## DECLARATION

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By submitting this thesis, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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## ABSTRACT

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Growing competition, fuelled by globalisation, has increased the number of alternatives across almost all product categories, leaving consumers overloaded with information and overwhelmed for choice. Brand and price represent two cues that have been found to influence consumer decision-making and which can be used in marketing strategies to create value, and differentiate from competitors in this increasingly competitive climate.

Responding to the misconceptions surrounding the decision-making of individuals classified in the low-income market segment, and in light of the significance of Bottom of Pyramid (BOP) supported by Prahalad (2002), this study was undertaken to assess the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examine the effect of different prices and brands on low-income consumers' product preference.

Primary causal research using a choice-based conjoint (CBC) analysis was conducted on a judgement sample of black female adults. A total of 209 questionnaires were completed through fieldwork of personal interviews in informal settlements in Gauteng. The study used a 5 price presentation (R18.99; R24.99; R28.99; R33.99; R42.99) by 5 brand presentation (*Ace*, *Iwisa*, *White Star*, *Mnandi*, *Ritebrand*) between-subjects design in the maize meal product category.

The hierarchical Bayes procedure and multinomial logit model were used to analyse the primary data. Results of the descriptive and inferential analysis of the CBC showed that brand was perceived as more important, attributing to 65 per cent of low-income consumers' decision-making process, opposed to the 35 per cent attributed to price, and that prices and brands had varying effects on low-income consumers' purchase probabilities.

Although lower prices did have higher perceived utilities, the price-sensitivity of low-income consumers was found to be less influential at lower price ranges, suggesting the stronger

influence of brand and brand associations on their evaluation of alternatives. Familiar brands (*White Star*, *Ace* and *Iwisa*) were seen to positively influence low-income consumers' purchase probability by reducing perceived risk, further enhanced by brand credibility as found with *Iwisa* (which indicated consistent quality) resulting in higher purchase probability. Unfamiliar brands (*Mnandi* and *Ritebrand*) were perceived as having low levels of utility, attributed to higher levels of perceived risk and unclear quality inferences.

The research conclusions, drawing from secondary research, proposed a model of low-income consumer decision-making that is influenced by various factors, including aversion to loss, and the desire to satisfy aspirations. Varying levels of brand knowledge, brand quality and credibility as well as symbolic value attached to different brands as perceived by low-income consumers, are argued to influence both individuals' aversion to loss, as well as their aspirational desires, and thus influence the decision-making process. Price and price–quality inferences, brand familiarity, brand–quality inferences, psychological factors and those surrounding the purchase context were found to have influence over the decision-making process of individuals within this market segment.

Managerial recommendations emphasise the significance of the BOP as a viable market segment, warn marketers of low-cost pricing strategies, and discuss the importance of employing value-based strategies and leveraging brand to attract, satisfy and retain consumers in this market segment. Managers are challenged to find a balance between perceived quality and reliability and affordable price, in order to operate successfully in the low-income market and offer effective value propositions that provide customer satisfaction while allowing for sustained sales and profits for the firm.

**Keywords:** price, brand, bottom of pyramid, choice-based conjoint, marketing

## OPSOMMING

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Groeiende mededinging, gedryf deur globalisering, het die aantal alternatiewe in byna alle produkkategorieë laat toeneem, wat verbruikers oorlaai met inligting en oorweldig met keuses. Handelsmerk en prys verteenwoordig twee leiseine wat verbruikersbesluitneming beïnvloed en wat gebruik kan word in bemarkingstrategieë om waarde te skep, en 'n produk van sy mededingers te onderskei in hierdie toenemend mededingende klimaat.

In reaksie op die wanopvattinge omtrent die besluitneming van individue wat in die lae-inkomste-marksegment geklassifiseer word, en in die lig van die betekenisvolheid van die Bodem van die Piramide (BOP) soos ondersteun deur Pralahad (2002), is hierdie studie onderneem om die waargenome belangrikheid van prys en handelsmerk in lae-inkomste-verbruikers se besluitnemingsproses te assesser, en sodoende die effek van verskillende pryse en handelsmerke op lae-inkomste-verbruikers se produkvoorkeure te ondersoek.

Primêre kousale navorsing deur 'n keusegebaseerde saamgevoegde analise ("choice-based conjoint analysis" of CBC) is uitgevoer op 'n oordeelsteekproef van swart, vroulike volwassenes. 'n Totaal van 209 vraelyste is voltooi deur middel van veldwerk in die vorm van uit persoonlike onderhoude in informele nedersettings in Gauteng. Die studie het 'n tussensubjekte-ontwerp gebruik met 'n 5-prys-aanbieding (R18.99; R24.99; R28.99; R33.99; R42.99) teenoor 'n 5-handelsmerk-aanbieding (*Ace*, *Iwisa*, *White Star*, *Mnandi*, *Ritebrand*) in die mieliemeel-produkkategorie.

Die hiërargiese Bayes-prosedure en multinomiale logitmodel is gebruik om die primêre data te ontleed. Die resultate van die beskrywende en inferensiële analise van die CBC het gewys dat handelsmerk as meer belangrik waargeneem word, met 65 persent van lae-inkomste-verbruikers se besluitnemingsproses wat daaraan toegeskryf kan word, in vergelyking met 35 persent aan prys. Verder het pryse en handelsmerke wisselende effekte op lae-inkomste-verbruikers se aankoopwaarskynlikhede gehad.

Alhoewel laer pryse hoër waargenome bruikbaarhede gehad het, is daar gevind dat die prys sensitiviteit van lae-inkomste-verbruikers minder invloedryk is in laer prysklasse, wat dui op die sterker invloed van handelsmerke en handelsmerkassosiasies op hulle evaluering van die verskillende alternatiewe. Bekende handelsmerke (*White Star*, *Ace* en *Iwisa*) het lae-inkomste-verbruikers se aankoopwaarskynlikheid positief beïnvloed deur waargenome risiko te verlaag. Hierdie verskynsel is verder versterk deur handelsmerk geloofwaardigheid, soos gesien by *Iwisa* (wat konsekwente gehalte aangedui het), wat lei tot hoër aankoopwaarskynlikheid. Onbekende handelsmerke (*Mnandi* en *Ritebrand*) is waargeneem as laag in terme van bruikbaarheidsvlakke, wat toegeskryf kan word aan hoër vlakke van waargenome risiko en onduidelike afleidings omtrent gehalte.

Die navorsingsgevolgtrekking, wat op grond van sekondêre navorsing gemaak is, stel 'n model van lae-inkomste-verbruikers besluitneming voor wat deur verskeie faktore beïnvloed word, insluitend 'n afkeer van verlies en die begeerte om aspirasies te bevredig. Wisselende vlakke van handelsmerkkennis, handelsmerkgehalte en -geloofwaardigheid, asook die simboliese waarde wat aan verskillende handelsmerke geheg word soos waargeneem deur lae-inkomste-verbruikers, beïnvloed sowel individue se afkeer van verlies as hulle aspirasionele behoeftes, en beïnvloed dus die besluitnemingsproses. Daar is gevind dat afleidings omtrent prys, prys teenoor gehalte en handelsmerk teenoor gehalte, handelsmerkbekendheid, sielkundige faktore en faktore vanuit die aankoopkonteks 'n invloed het op die besluitnemingsproses van individue binne hierdie marksegment.

Bestuursaanbevelings beklemtoon die belangrikheid van die BOP as 'n lewensvatbare marksegment, waarsku bemarkers teen laekoste-prysingstrategieë, en bespreek die belang daarvan om waardegebaseerde strategieë te gebruik en handelsmerke te hefboom om verbruikers in hierdie marksegment te lok, te bevredig en te behou. Bestuurders word uitgedaag om 'n balans te vind tussen waargenome gehalte en betroubaarheid en bekostigbare pryse, ten einde suksesvol in die lae-inkomstemark te funksioneer en doeltreffende



waardeproposisies te bied wat verbruikersbevrediging verskaf, maar steeds ruimte laat vir volgehoue verkope en winste vir die firma.

**Sleutelwoorde:**, prys, handelsmerk, Bodem van die Piramide, keusegebaseerde saamgevoegde analise, bemarking

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## LIST OF ABBREVIATIONS

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<b>ANOVA:</b>	Analysis of variance
<b>BOP:</b>	Bottom of pyramid
<b>BPI:</b>	Buying power index
<b>CBC:</b>	Choice-based conjoint
<b>ELM:</b>	Elaboration likelihood model
<b>FMCG:</b>	Fast moving consumer goods
<b>JHB:</b>	Johannesburg
<b>KZN:</b>	Kwa-Zulu Natal
<b>LSD:</b>	Least significant differences
<b>LSM:</b>	Living standards measure
<b>MNL:</b>	Multinomial logit

## CHAPTER 1 | INTRODUCTION AND BACKGROUND

---

### 1.1. INTRODUCTION

Growing competition, fuelled by globalisation, has increased the number of alternatives across almost all product categories, leaving consumers overloaded with information and overwhelmed for choice (Bristow, Schniedier and Schuler, 2002). The increase in the number of alternatives also pressures firms to differentiate from their competitors by providing value-added products and services (East and Vanhule, 2013). In order to achieve customer satisfaction, marketers require greater insight into the dynamic strategies that consumers employ in their daily decision-making process. Effective marketing should build value propositions that provide utility to individuals, and influence the consumer decision-making process by providing extrinsic and intrinsic cues to guide the purchase of specific products (Tariq, Nawaz, Nawaz and Butt, 2013; Olson, 1973; Dick, Jain and Richardson, 1997).

Brand and price represent two cues that have been found to influence consumer decision-making and which can be used in marketing strategies to create value, and differentiate from competitors (Parumasur and Roberts-Lombard, 2012; Frutcher, 2009; Jacoby, Olson and Haddock, 1971; Stafford and Enis, 1969). Marketers therefore have opportunities to manipulate these cues in order to influence consumer behaviour and decision-making.

Market segmentation is intrinsic to the marketing concept as it allows firms to focus their resources on the market segment(s) with the greatest potential for growth and profits (Bothma, 2013; Kotler and Keller, 2008; Parumasur and Roberts-Lombard, 2012). Marketers should identify market segments, understand their respective decision-making behaviour, and tailor value propositions accordingly. In response to growingly saturated upper income segments, the bottom of pyramid (BOP) is identified as a segment that is globally measurable at an estimated four billion under-served people (Wood, Pitta and Franzak, 2008; Guesalaga and Marshall, 2008), accessible through innovation in infrastructure and distribution,

differentiable from higher income segments with unique needs and expectations, and large enough (80% of the world's population as of the 21st century) to warrant private firms' attention and involvement (Choi, Kim and Kim, 2008: 304).

Before the BOP market segment can be profitably reached, effective value propositions should be developed, using the concepts of price and brand. **Thus, this study was undertaken to assess the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examine the effect of different prices and brands on low-income consumers' product preference.**

The marketing research process was employed to guide the execution of the study and reconcile the research objectives. In order to formulate the problem statement for the study, a review of the existing literature relevant to the study was necessary. Secondary research was conducted surrounding consumer behaviour and decision-making (Chapter 2), and the role of the product characteristics of price and brand in consumer decision-making was explored (Chapter 3), providing a background to the key concepts. The significance and scope of the BOP was discussed, highlighting the relevance of low-income consumers as the target of this research, while a basic profile of individuals classified as belonging to the BOP provided further insight into the consumer behaviour and decision-making of this under-served market segment (Chapter 4).

The purpose of the study, as outlined in the problem statement, was to make a contribution to the body of knowledge surrounding low-income consumers' decision-making and the interrelated role of price and brand thereon. The sections thereafter present the objectives of the research together with a discussion of the research design employed to collect and analyse the primary data. The chapter closes with a summary of chapters to follow, providing a basic overview of the current study.

## 1.2. THE MARKETING RESEARCH PROCESS

Marketing research is a specialised form of business research, orientated around the consumer, exploring and describing research problems that are directly related to consumers and their behaviour (Kotler and Keller, 2009). The purpose of marketing research is to address relevant problems, search for truth surrounding marketing phenomena, and provide information to guide managerial decision-making (Grover and Vriens, 2006).

The marketing research process outlines key steps in effectively addressing research problems, collecting and analysing relevant data and formulating conclusions and managerial recommendations. The marketing research process (Table 1.1) guided the researcher in the execution of the current study, and provided a framework for the chapters to follow.

**Table 1.1: The marketing research process**

STEPS	PRACTICAL IMPLICATIONS
<b>1. Define the problem and research objectives</b>	Literature review (Chapter 2, 3, 4) Problem statement
<b>2. Planning the research design</b>	Secondary research Primary research Data collection instrument
<b>3. Planning a sample</b>	Sampling design
<b>4. Collecting the data</b>	Fieldwork and data collection
<b>5. Analysing the data and results</b>	Chapter 6
<b>6. Conclusions and recommendations</b>	Chapter 7

The first step in the research process required a review of literature to be conducted, in order to identify gaps within the existing relevant literature and contextualise the problem statement. A summary of the review of extant literature surrounding consumer decision-making, price and brand, and the BOP proposition (Figure 1.1), is presented next.

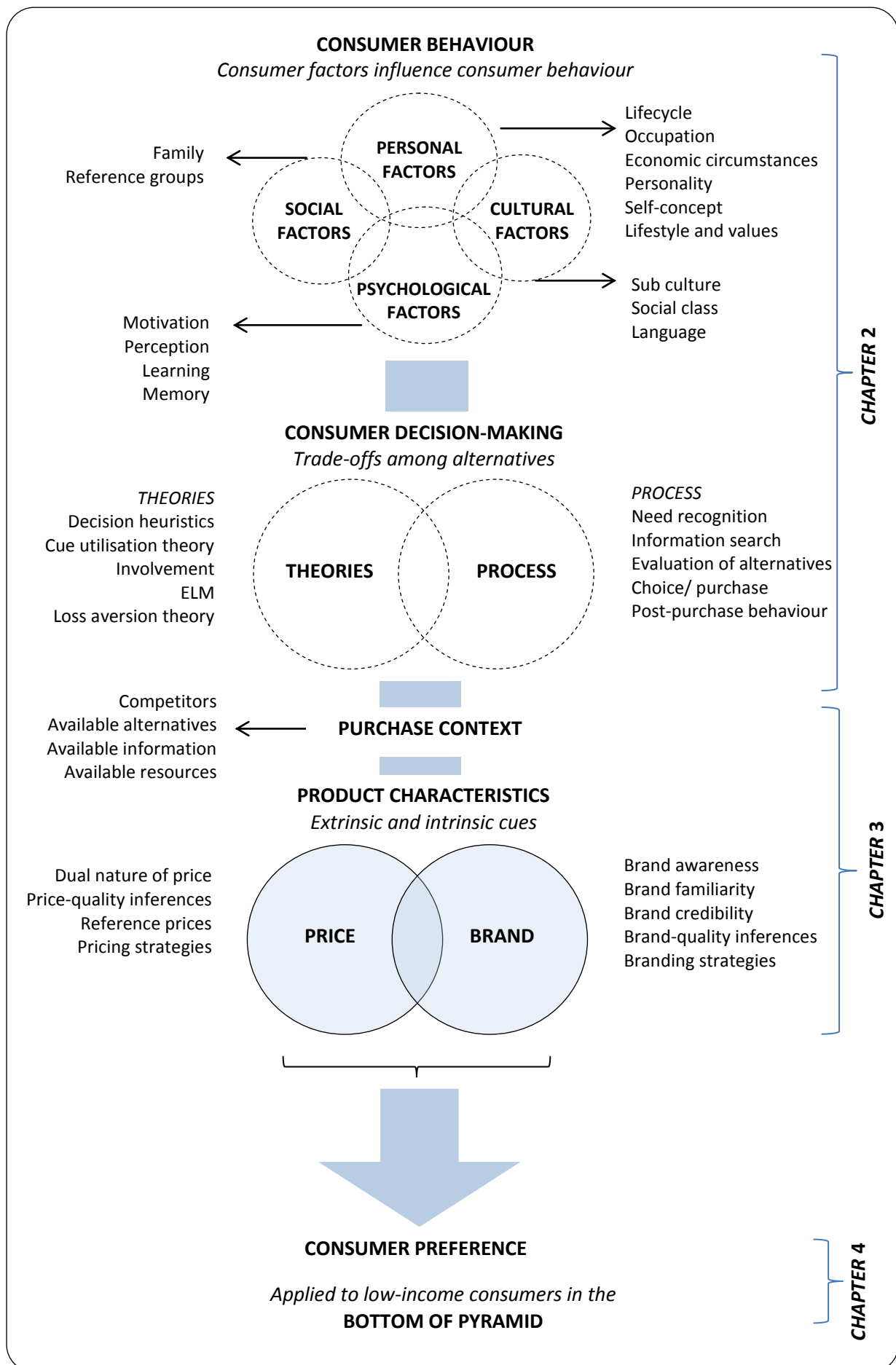


Figure 1.1: Overview of literature

### **1.3. CONSUMER DECISION-MAKING**

Consumer decision-making, intrinsically related to consumer behaviour, provides a process through which individuals satisfy their needs and achieve their personal objectives (Jackson, 2005). Individuals employ decision-making to overcome daily uncertainty, limited time, resources and information. In the context of marketing, consumer behaviour provided the theoretical starting point from which the existing literature surrounding consumer decision-making was explored. The following sections summarise the detailed review of literature relating to consumer decision-making in Chapter 2.

#### **1.3.1. Consumer behaviour**

Consumer behaviour can be interpreted as “the intersection of the individual’s learning history and consumer setting” (Foxall, Oliveira-Castro, James and Schrezenmaier, 2011), and includes the study of how individuals, groups, and organisations buy, use, and dispose of goods and services, ideas or experiences to satisfy their needs and wants (Parumasur and Roberts-Lombard, 2012; Kotler and Keller, 2009; Cant, Brink and Brijball, 2002). As outlined by Foxall *et al.* (2011), consumer behaviour has received increased attention in the field of marketing and marketing research over the past decades, (East and Vanhuele, 2013; Jobber, 2004; Kotler, Armstrong, Saunders and Wong, 2001; Keith, 1960), reiterating its importance and that of understanding consumer decision-making.

Various models have been developed to understand consumer behaviour (East and Vanhuele, 2013; Parumasur and Roberts-Lombard, 2012; Kotler and Keller, 2009; Blackwell, Miniard, and Engel, 2001), emerging from different fields of study, particularly economics, sociology and psychology (Foxall *et al.*, 2011; Murgolo-Poore, Pitt and Berthon, 2003). The stimulus-response model outlines the process in which external factors (including marketing strategies surrounding brand and price) enter the consumers’ consciousness, combined with unique consumer factors and consumer psychology. These are seen to influence the buying-decision



process and possible purchase decision (East and Vanhuele, 2013; Kotler and Keller, 2009; Bornemann and Homburg, 2011; Aaker, 1991; Monroe, 1976).

As shown in Figure 1.1, consumer factors include social factors (such as reference groups and family) (Kotler and Keller, 2009; Childers and Rao, 1992; Bearden and Etzel, 1982), cultural factors (such as culture, subculture and social class) (Keegan and Green, 2013; Kotler and Keller, 2008; Lamb, Hair, McDaniel, Boshoff and Terblanche, 2008; Ball, McCulloch, Geringer, Frantz and Minor, 2003) and personal factors (stage in life cycle, occupation and economic circumstances, personality and self-concept, and lifestyle and values) (Kotler and Keller, 2009; Lamb *et al.*, 2008). Consumer psychology addresses psychological factors (motivation, learning, perception, and memory) and explores the effect of prior experience and knowledge with which individuals enter the purchase decision (Papatla and Krishnamurthi, 1992; Monroe, 1976).

### **1.3.2. Theories of decision-making**

Consumers are daily faced with complex decisions made under uncertainty. With limited information, resources and time, individuals are forced to make trade-offs between perceived benefits and costs to maximise utility, avoid perceived losses and satisfy their needs (Jackson, 2005; Tversky and Kahneman, 1991; Monroe, 1976; Jacoby, Olsen and Haddock, 1971; Tull, Boring and Gonsior, 1964). In order to achieve customer satisfaction, marketers require greater insight into the complex and dynamic strategies that consumers employ in their daily decision-making process. Understanding consumer decision-making falls within the field of consumer behaviour and attempts to untangle the complex processes that influence individuals' product evaluation, preference and choice.

Classic economic theory describes the consumer as a rational being with access to perfect, comparable information (Ding, Ross and Rao, 2010; Jackson, 2005; Putler, 1992; Tull, Boring and Gonsior, 1964). Following the theory of reasoned action (Bagozzi, Baumgartner and Yi, 1992; Fishbein and Ajzen, 1975) and the theory of planned behaviour (Lynne, Casey,

Hodges and Rahmani, 1995; Azjen, 1985), individuals are also seen to make wholly rational choices based on systematic utilitarian trade-offs of costs versus benefits of available alternatives. According to this utilitarian model of consumer choice (Russel and Wilkinson, 1979), the classical consumer is fully aware of product–price alternatives available and with consistent preferences, is able to calculate the marginal utility of each alternative and choose that which provides greatest utility for the least sacrifice (Begg, Fischer and Dornbusch, 2003, Mas-Colell, Whinston, and Green, 1995).

However, the real-world consumers' decision-making and subsequent purchases are frequently made with varying uncertainty regarding the products available and their respective attributes (Jackson, 2005; Dawar and Parker, 1994; Tull, Boring, and Gonsior, 1964; Monroe, 1976; Jacoby, Olson, and Haddock, 1971). The limitations of economic theory to address the complexity of consumer decision-making illustrate a gap in understanding in which marketing theory, particularly that of consumer behaviour, has begun to close. Various theories, namely *cue utilisation theory* (Bian and Moutinho, 2011; Olsen, Menichelli, Meyer and Naes, 2011; Collins-Dodd and Lindley, 2002; Kent and Rao, 1989; Olson, 1973), *decision heuristics* (Müller, 2011; Ofir, Raghubir, Brosh, Monroe and Heiman, 2008; March and Heath, 1994; Hoyer and Brown, 1990; Tversky and Kahneman, 1973), *consumer involvement* (Chen, Chen and Huang, 2012; Lockshin, Spawton and Macintosh, 1997; Flynn and Goldsmith, 1993; Kapferer and Laurent, 1993; Laurent and Kapferer, 1985), *the elaboration likelihood model* (Kotler and Keller, 2009; Petty and Cacioppo, 1984), and *loss aversion theory* (Kotler and Keller, 2009; Paraschiv and L'Haridon, 2008; Hoeffler and Keller, 2003; Tversky and Kahneman, 1991), were discussed. The different theories were used to deconstruct the decision-making of the consumer and to support the relevance of measuring the importance and effect of price and brands on low-income consumers' decision-making process.

### 1.3.3. The consumer decision-making process

Consumers often make decisions after comparing alternatives without perfect information. In other words, consumer purchase decisions are frequently made under conditions of varying uncertainty regarding the product and its attributes (Tull, Boring and Gonsior, 1964; Jacoby, Olsen and Haddock, 1971; Monroe, 1976). Information search is a way for consumers to reduce this uncertainty, in order to make rational judgements. This process often draws on prior purchase-use experience, brand knowledge and internal references price. Consumer decision-making is thus a complex process affected by various factors where individuals make trade-offs between alternatives with limited information, resources and time in order to best satisfy their needs (East and Vanhuele, 2013; Pantano, 2011; Papatla and Krishnamurthi, 1992). The consumer decision-making process (Figure 1.2) illustrates generic steps that the consumer typically goes through in the decision-making process (East and Vanhuele, 2013; Kotler and Keller, 2009).

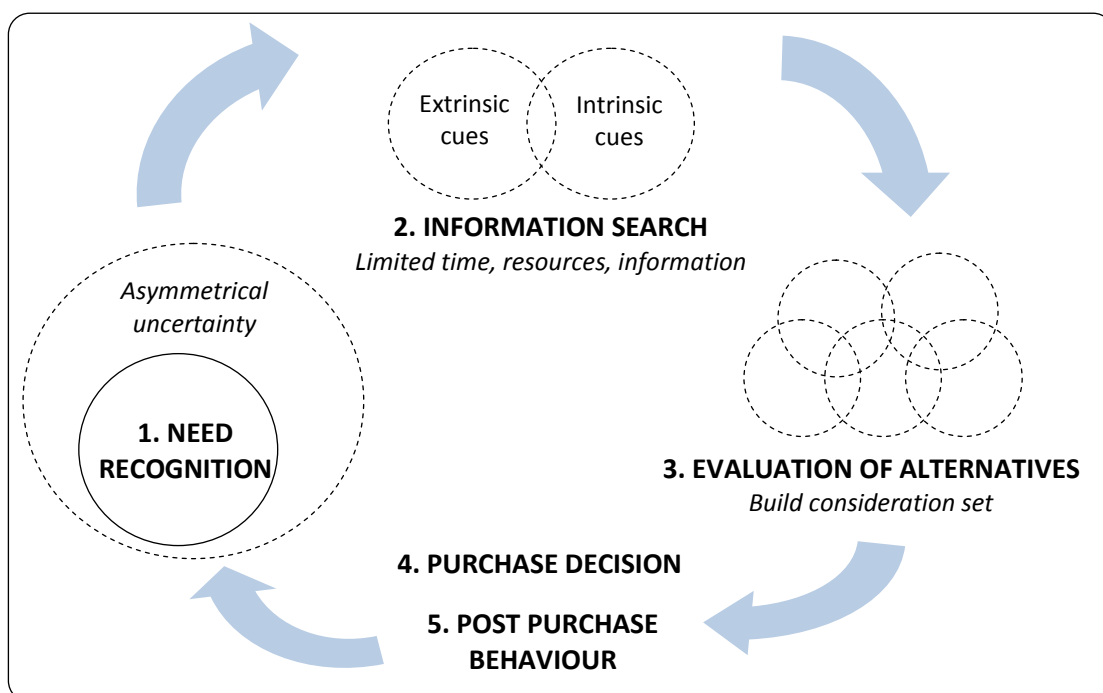


Figure 1.2: Consumer decision-making process

The different steps reflect the practical process which is triggered by need recognition. Consumers search for information using extrinsic and intrinsic cues under time and information constraints. From the information search, consumers are able to build consistent sets of alternatives which are available and applicable to their needs. The evaluation of alternatives requires trade-offs to be made among different attributes, guiding the purchase decision. Post-purchase behaviour refers to those actions and attitudes that occur after the purchase decision, which can subsequently guide future decisions. The consumer decision-making process provided a framework for the discussion of the role of price and brand which follows.

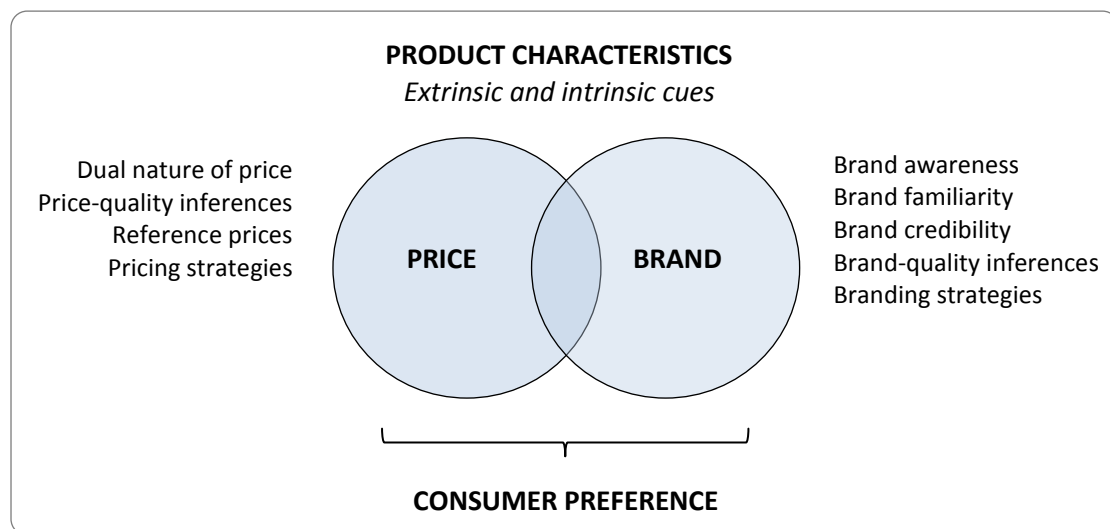
#### **1.4. THE ROLE OF PRICE AND BRAND ON DECISION-MAKING**

Price and brand are influential tools at the marketer's disposal to build value propositions that will satisfy consumers' needs. The strategic importance of these concepts is emphasised by their dynamic nature and various possible influences on consumer decision-making and ultimately product choice. Drawing from cue utilisation theory, price and brand are identified as extrinsic and intrinsic cues that may possibly be used by individuals in the decision-making process (Frutcher, 2009; Shapiro, 1973; Jacoby *et al.*, 1971; Stafford and Enis, 1969).

Marketing-orientated theory of consumer behaviour recognises the possible influence of various factors (including both price and brand, and consumer characteristics) on consumer decision-making. Furthermore, marketing theory suggests that price and brands are cues used by firms and consumers to differentiate similar products when faced with alternatives (Olsen *et al.*, 2011; Romanuik, Sharp and Ehrenberg, 2007; Gaillard, Romaniuk and Sharp, 2005; Collins-Dodd and Lindley, 2002). Information imperfections in the marketplace combined with consumers' limited access to time and resources may cause consumers to build brand perceptions regarding quality, price and value using extrinsic and intrinsic cues which then influence their product preferences and brand choices (Jackson, 2005).

Literature suggests that both brand image and price are possible determiners of product quality perceptions, and thus also influence consumer behaviour (Frutcher, 2009; Jacoby, Olson and Haddock, 1971; Stafford and Enis, 1969). Consequently, the close relationships between price and choice, brand and choice, and price and brand, were explored in this study.

Emphasised in Figure 1.3, the role of price in the consumer decision-making process is discussed in light of the *dual nature of price* (Machado, 2013; Bornemann and Homburg, 2011; Lichtenstein, Rideway and Netemeyer, 1993; Kalwani, Yim, Rinne and Sugita, 1990; Winer, 1986; Rao and Monroe, 1988; Monroe, 1976; Leavitt, 1954), *price-quality inferences* (Burton *et al.*, 1998; Lichtenstein, Rideway and Netemeyer, 1993; Etgar and Malhotra, 1981; Gardner, 1971; McConnell, 1968; Tull *et al.*, 1964; Leavitt, 1954), *reference prices* (Maxwell and Comer, 2010; Biswas, Wilson and Licata, 1993; Monroe, 1976; Monroe, 1973), and *pricing strategies* (Machado, 2013; Hamlin *et al.*, 2012; Huang and Sarigllu, 2011; Beneke, 2010; Myers, 2003; Grewal *et al.*, 1998; Motes, Castleberry and Motes, 1984).



**Figure 1.3: Overview of role of price and brand**

Similarly, the role of brand thereon is discussed in terms of *brand awareness* (Huang and Sarigollu, 2011; Bian and Moutinho, 2011; Kay, 2006; Keller, 2003; Faircloth, Capella and Alford, 2001; Aaker, 1991; Hoyer and Brown, 1990; Farquar, 1989), *brand familiarity* (Biswas, 1992; Alba and Hutchinson, 1987; Rao and Monroe, 1988), *brand credibility* (Baek,

Kim and Ju., 2010; Erdem and Swait, 2007; Erdem and Swait, 1994), *brand-quality inferences* (Grace and O’Cass, 2002; Janiszewski and Van Osselaer, 2000), and *branding strategies* (Beneke, 2010; Volkner and Sattler, 2006; Janiszewski and Osselaer, 2000; Jin and Suh, 2005; Sethuraman and Cole, 1999; Baltas, 1997). The different elements of brand explore the possible influences of brand on consumer decision-making.

#### **1.4.1. The role of price**

Price provides consumers with a concrete, measurable and comparable cue with which to evaluate alternatives (Jacoby, Olson and Haddock, 1971). Bornemann and Homburg (2011) approach price as a *dual construct* representing both a cost and benefit to the consumer. These authors suggest that when evaluating a product, consumers may interpret price information as either an indicator of monetary sacrifice (the negative role of price) or as an indicator of quality (the positive role of price) (Bornemann and Homburg, 2011; Frutcher, 2009; Rao and Monroe, 1988; Leavitt, 1954). Consumers’ perceptions of different prices may be “moderated by a variety of factors, including variables related to consumers’ price knowledge” and prior experience (Blair, Harris and Monroe, 2002: 177). According to this view, consumers base purchase decisions on how they perceive prices and what they consider the current actual price to be (Kotler and Keller, 2009).

*Price–quality inferences* occur when consumers’ perceived quality of a product offering is related to its price. As discussed by Sinha and Batra (1999: 239), “the degree to which a higher price implies higher quality, and how this diagnosticity varies across contexts, has been a topic of considerable research in marketing”. Based on Grewal, Monroe and Krishnan’s research (1998: 47) and drawing from the work of Zeithaml (1988), “perceived quality” is defined for the purpose of this study as “a buyer’s estimate of a product’s cumulative excellence”.

Burton *et al.* (1998) draw a link between price-perceived quality research and loss aversion theory by suggesting that risk-averse consumers are more likely to purchase high-priced brands in a product category as a means of reducing the risk of purchasing a brand of inferior quality. Price–quality inferences can be attributed to a specific decision heuristic which reflects a belief that one gets for what one pays. Under this premise, supply and demand will produce a natural ordering of products on a price scale – creating the strong positive relationship between price and product quality (Rao and Monroe, 1989).

*Reference prices* are established through the consumers' past experience, and range of prices last paid, or extrapolated from the prevailing range of prices (Monroe, 1976; Biswas, Wilson and Licata, 1993). In this way, price becomes a dynamic factor in the consumer decision-buying process, with the current price being assessed against an internal attitudinal frame of reference developed by the consumer from previous prices seen, or those stored in memory (Biswas, 1992; Mazumdar and Monroe, 1992; Putler, 1992). The existence of internal reference prices suggests that both unusually high and low prices may cause consumers to refrain from purchasing a product because such prices are considered unrealistic when compared to the buyers' reference point of expected prices (Monroe, 1976).

*Pricing strategies* are a key component of the long-term profitability of the firm, providing the most flexible and adaptable tool for the firm to suit different market climates and address environmental changes (Beneke, 2010). Such strategies (price penetration, price skimming, premium pricing, promotional pricing) allow the firm to remain competitive, and respond to cyclical consumer demands accordingly (Machado, 2013; Hamlin *et al.*, 2012; Huang and Sarigllu, 2011; Kotler and Keller, 2009; Grewal *et al.*, 1998). However, although substantial price reductions appear to be effective mechanisms for increasing consumer demand and thus generating sales (particularly in the retail sector), Motes, Castleberry and Motes (1984), supported by Myers (2003) and Baltas (1997), warn marketers against the overuse of short-term price promotions as they do not always produce positive results. Understanding the role

of price in low-income consumers' decision-making processes enables the marketer to further explore the effectiveness of various pricing strategies.

From the consumer perspective – established through Dickson and Sawyer's (1986) research as discussed by Mazumdar and Monroe (1992) – individuals are understood to attend to and process price information in order to compare prices across stores, and to compare prices of different brands within a store to enable purchase decisions. The latter, namely in-store price comparisons and purchase decisions, provides the context for the current study.

In summary, price provides consumers with a benchmark against which utility gains and product quality can be compared (Frutcher, 2009). The role of price in consumer decision-making and product preference (Figure 1.1) is explored in greater detail in Chapter 3, particularly that of low-income consumers.

#### **1.4.2. The role of brands**

A brand can be defined as a distinguishing name, term, sign, symbol, or design or combination of these, which is intended to identify the goods or services of one seller (or a group of sellers), and to differentiate them from those of competitors (Bian and Moutinho, 2011; Kotler and Keller, 2009; Keller, 2003; Aaker, 1991; Farquar, 1989). This definition confines brands to being “identifiers” of a product – merely a part of the product. A more holistic approach includes the tangible and intangible attributes that provide satisfaction to consumers (Nguyen, Barrett and Miller, 2010). Decomposing products into attributes suggests that the product and brand have separate although related values and purposes, where the product provides consumers with functional benefits, while the brand can provide consumers with symbolic and emotional benefits and satisfaction (Bhat and Reddy, 1998).

*Brand awareness* can be defined as a “rudimentary level of brand knowledge involving, at the least, recognition of the brand name” and refers to the ability of consumers to recall a brand (Hoyer and Brown, 1990: 141). Awareness represents the lowest end of the continuum of



brand knowledge, yet is recognised as important in low-involvement situations where consumers invest less time in the search for information and evaluation of alternatives (Figure 1.2). In the context of such low-involvement packaged goods, brands that consumers know are more likely to be included in the consumers' consideration set, thereby increasing their chances of being purchased and improving overall brand market performance (Huang and Sarigollu, 2011).

*Brand familiarity* is a more developed level of brand knowledge and can be defined as the individual's accumulation of brand-related experiences (Biswas, 1992; Alba and Hutchinson, 1987; Rao and Monroe, 1988). Brand familiarity can also influence individuals' perceptions of price, as seen in Roa and Monroe's (1988) research which found that product familiarity was likely to mediate the price-perceived quality effect (see 3.2). Biswas' (1992) research further argues that consumers who are familiar with a brand are less likely to be affected by exaggerated reference prices than those unfamiliar with the brand. In this way, familiarity can also be related to trust and risk. Consumers may attach less risk to familiar brands – owing to positive or satisfactory experiences with them – than to unfamiliar brands, supporting the loss aversion theory previously mentioned (Tversky and Kahneman, 1991).

*Brand credibility* can be defined as the perceived believability of whether a brand has the ability and willingness to continuously deliver what has been promised. With the potential to contribute to consumers' perceived brand value, building brand credibility can positively affect consumer brand purchase intention (Baek *et al.*, 2010).

*Brand-quality inferences* occur when consumers attach certain economic and symbolic value to products, inferred from associations and experience with the brand, increasing the perceived quality and thus overall value of the product. Similar to *price-quality* inferences, consumers can make brand-quality inferences by associating higher quality and value with certain brands, over others. Brand name is not always used as signal for quality, however, and

can be culture-specific, making focused research on different cultures and socio-economic segments necessary to build a reliable body of knowledge (Dawar and Parker, 1994).

The potential influence of brands has led to managers increasingly developing complex *branding strategies* to attract, entice, retain and satisfy consumers (Janiszewski and Osselaer, 2000). Brands can be characterised as being private (brand extension of the retailer brand, owned by the retailer with independent brand, or independent brand) or national (distributor/manufacturers brand). Private label brands including store brands, play an increasingly important role in the food retail sector and retail grocery strategy (Olsen, Menichelli, Meyer and Naes, 2011; Richardson, Jain and Dick, 1992). Store brands have been found to provide relatively good quality but at lower prices compared to national brands, encouraging value conscious consumers' intention to purchase (Bao and Mandrik, 2004; Burton *et al.*, 1998; Richardson, Jain and Dick, 1996). In the context of South Africa, the private label market share was estimated at 11 per cent in 2010(a 4% increase from 2007) (Beneke, 2010).

From the perspective of the firm, “effective brands have been correlated with increasing market share, lending credibility to new product developments, giving a clear, valued and sustained point of difference as well as commanding a premium”, increasing brand trust and reducing price-sensitivity of consumers (Beneke, 2010: 205). Increasing new product development costs as well as the high rate of new product failures have also elevated brands and branding in business strategies because of their ability to be extended across new products, lowering development and launch costs (Myers, 2003; Cobb-Walgren, Ruble and Donthu, 1995). Further advantages include building a strong relationship between brand and consumer, encouraging repeat purchases and customer retention, disincentivising consumers switching to different brands even when provided with a better offer, and ultimately contributing to long-term profitability (Beneke, 2010; Myers, 2003; Bhat and Reddy, 1998).

From the perspective of the consumer, brands provide helpful heuristics in simplifying decision-making and saving time in the information search and the evaluation of alternatives

stages of the decision-making process (Tariq *et al.*, 2013; Hamlin *et al.*, 2012; Macdonald and Sharp, 2000; Hoyer and Brown, 1990; Aaker, 1991; Narayana and Markin, 1975). With rising competition fuelled by globalisation, the range of products and services available to consumers is growing at an exponential rate. This overload of information and immense range of alternatives leaves consumers overwhelmed even in the fast moving consumer goods (FMCG) category, causing consumers to rely more on strong brands with clear and positive associations to help them make choices (Joubert and Poalses, 2012).

Guided by the purpose of the current study, a brief overview of the literature surrounding the BOP (Figure 1.1) was then presented (Chapter 4), applying the theories regarding consumer decision-making and price and brand.

### **1.5. THE BOP PROPOSITION**

The current study was driven by the importance of this market segment, both socially and economically, in view of its potential for market expansion (Bang and Joshi, 2008). It is hoped that the study contributes toward greater insight into the importance and effect of price and brands on low-income consumers' product preference. Insight drawn from the results of the study may allow firms to build more effective value propositions for products and services, create pricing strategies that will satisfy individuals within the BOP target market, and generate profits.

The BOP proposition was popularised by Prahalad (2002) and discusses the role of private, profit-orientated firms in socio-economic upliftment, and poverty eradication. The belief that public and profit objectives can be reconciled guided the focus on low-income consumers, a reported global market of four billion potential consumers. The contributions that the current study could have include sharing understanding of consumer behaviour of the BOP market segment as well as offering strategic advice to firms interested in entering and succeeding in this untapped market segment (Prahalad and Hammond, 2002). The summarised review of literature to follow begins by discussing the socio-economic importance of the BOP from a

global and firm perspective; continues with a working definition of the BOP establishing the potential scope of this market segment; and closes with a basic lifestyle profile of individuals considered part of this market segment. Greater discussion on the BOP can be found in Chapter 4.

### **1.5.1. The importance of the BOP**

The demand for greater attention on the BOP has been suggested as central to addressing pressing social problems associated with poverty and unemployment – and strategically important for firms facing increased global competition and growingly saturated markets (Wood *et al*, 2008; Bang and Joshi, 2008). Addressing the misconceptions that the fourth tier in the income pyramid (or low-income market) has little profit potential owing to their price sensitivity, the BOP proposition draws attention to the consumer behaviour and decision-making process of this largely overlooked market segment, thereby encouraging private firms to see it instead as a “prodigious opportunity for the worlds’ wealthiest companies – to seek their fortunes and bring prosperity to the aspiring poor” (D’Andrea, Ring, Aleman and Stengel, 2006; Prahalad and Hart, 2002).

Furthermore, in recent years, the needs of the BOP market segment and the billions who reside there, have risen on corporate and social developmental agendas. The Millennium Development Goals as part of the UN Millennium Project has seen the issues of poverty, education and health-care become global concerns. However, with limited research focus on the large and diverse BOP market segment, a gap in understanding of the consumer behaviour and decision-making of low-income consumers is prevalent.

Using the World Resources Institute and International Finance Corporation, Subrahmanyam and Gomez-Arias (2008) project global BOP consumption to be USD 5 trillion. Although scrutinised by Pitta, Guesalaga, and Marshall (2008), the potential spending power of the vast

number of low-income consumers provides a considerable incentive for firms to pay attention to this vast yet deprived market segment (Guesalagua and Marshall, 2008).

### **1.5.2. Defining the BOP**

In order for the viability of the BOP to be ascertained, a working definition of this market segment is required, outlining the potential scope and value it can hold. Chikweche and Fletcher (2010: 247) report Africa's BOP market to be worth USD 429 billion, where in South Africa, over one-third of the population can be classified as part of this market segment (Corder, Chipp and Kapelianis, 2012: 3). Further research has estimated figures for market potential and purchasing power of the global BOP to be from between USD 2.7 billion and USD 5 trillion per annum. Guesalaga and Marshall's (2008:414) research addressed the discrepancies in the estimated market value through the "buying power index (BPI) methodology". This concluded that in the BOP market, buying power can reach USD 5000 billion per annum with an expenditure possibility reaching USD 6000 billion per annum, with Africa having the highest BPI in the world (Guesalaga and Marshall, 2008: 414). However, discrepancies still exist in the true value of the BOP, illustrating a significant gap in research on this market segment and a key concern for firms considering serving the low-income consumer.

A brief overview of the general consensus of the size and characteristics of this market is given in response to the challenges of establishing the true value of the BOP. Prahalad and Hammond (2002), as reported by Corder and Chip (2012), established a cut-off income level of USD 2000 per year that equates approximately to USD 5.50 or ZAR 38.50 per day (USD 1= ZAR 7.00), identifying four billion consumers from the global market. Arguing that the BOP is "not a monolithic, homogenous whole", Rangan, Chu and Petkosi (2011) further use multiple cut-off income levels to build a flexible model.

Although substantial research has been done on the BOP market in Brazil and India, the results cannot be generalised across this dynamic and diverse global market segment. Rather,

as argued by Chikweche and Fletcher (2010), each cultural and socio-political region requires focused research to build relevant and effective marketing and business strategies. Firms must recognise the need to re-invent largely Western models of doing business, to fit with the local needs and requirements of communities (Barki and Parente, 2010).

The relative lack of research done on the BOP in South Africa justified the focus of the current study. Furthermore, South Africa was recognised as the frontier for the Sub-Saharan African continent, and as reported by Corder and Chip (2012), it has a significant low-income market segment. Using the household data from the All Media and Product Survey, and living standards measure (LSM), the South African market is segmented into four tiers. The lowest *foundation* tier represents a significant 35.8 per cent (11 194 000) of South African adults, with an average personal income of ZAR 43.73 (USD 6.25) per day, and forms the base and “bottom” of the South African income pyramid (Corder and Chip, 2012).

### **1.5.3. The BOP consumer**

Key characteristics of the BOP consumer provide a basic profile of low-income consumers. In terms of lifestyle, these individuals and families generally live in “substandard housing, with limited or no access to sanitation, potable water or health care, have low levels of literacy, and earn very low incomes” or are supported by social grants (Weidner, Rosa and Viswanathan, 2010: 559; Chikweche and Fletcher, 2010). These circumstances provide significant challenges for marketers to build effective and affordable value propositions in order to build lasting and profitable relationships with these consumers.

The BOP has been a largely misunderstood market segment. D’Andrea *et al.* (2006) refute several myths surrounding emerging consumers in the BOP, highlighting common misconceptions associated with low-income consumers, and opportunities that lie behind them. Wood *et al.* (2008), Pitta *et al.* (2008), Subrahmanyam and Gomez-Arias (2007), Moore (2006) and Hamilton and Catterall (2005) further challenge the view that low-income consumers have simple needs, satisfied solely by the lowest price available – instead,

illustrating the BOP market segment needs as dynamic, brand-conscious and driven by quality.

BOP consumers are found to have significantly different buying patterns and expectations from those of high-income and affluent tiers, and thus require tailored production and marketing strategies (D'Andrea, Marcotte and Morrison, 2010; Wood *et al.*, 2008; Pitta, *et al.*, 2008; Subrahmanyam and Gomez-Arias, 2007; Hamilton and Catterall, 2005). Research finds that low-income consumers in emerging markets purchase a lot of the cheapest and a little of the best – and often ignore the middle alternatives while being both price-sensitive, and brand-conscious depending on their purchases (Pitta *et al.*, 2008). Low-income consumers make complex trade-offs between price and brand. The research of Pitta *et al.* (2008) suggests that low-income consumers do care about brands because of their association with product quality. This guarantee of quality is “particularly important to this segment because the financial loss from an underperforming product is greater for people with limited incomes”, reiterating the aversion to loss prevalent with individuals within this market segment (Pitta *et al.*, 2008: 399; D'Andrea, Stengel and Goebel-Krstelji, 2004).

The challenge for marketers, enhanced by a significant gap in marketing literature in the BOP market segment, is how to build value propositions based on brand and pricing strategies that meet the needs of these low-income and high value-consciousness consumers. The purpose of the current study, driven by this challenge, is discussed in the following section.

## **1.6. PROBLEM STATEMENT**

Defining the problem is the first step of the marketing research process (Table 1.1), and is done by identifying gaps in the existing relevant literature. Researchers concur that complex relationships exists among price and affordability, brand familiarity built through prior experience, perceptions of quality, and consumers' choice (Bornemann and Homburg, 2011; Chikweche and Fletcher, 2010; Biswaqs, 1992; Etgar and Malhotra, 1981; Monroe, 1976; Jacoby *et al.*, 1971; McConnell, 1968; Tull *et al.*, 1964; Leavitt, 1954). Individuals faced

with a growing number of alternatives, incomplete information, limited resources and time, are forced to make trade-offs between these factors, while also being guided by their perceptions of quality and value. These trade-offs guide choices as individuals aim to satisfy their needs as best as possible.

Understanding the role of price and brands on consumers' decision-buying behaviour will allow the importance of these key factors to be ascertained. With this knowledge, private firms may be able to better address the needs of consumers through the formulation and execution of effective value propositions, increasing profits, and building sustained customer satisfaction.

Targeting the right market segment is also an important managerial decision guiding firms to focus their resources on the market segment(s) with the greatest potential for growth and profits (Bothma, 2013, Kotler and Keller, 2008, Parumasur and Roberts-Lombard, 2012). Africa's BOP market is estimated at USD 429 billion, with population growth in this region forecast to be highest across global BOP regions (Chikweche and Fletcher, 2010). The existing literature surrounding the BOP covers the many challenges facing low-income consumers (Weidner *et al.*, 2010, Chikweche and Fletcher, 2010, Hamilton and Catterall, 2005). It also covers the role of branding in this market segment (Beneke, 2010, Chikweche and Fletcher, 2010, Pitta *et al.*, 2008, Moore, 2006), as well as the socio-economic significance of uplifting the bottom billion (Prahalad, 2005, Prahalad and Hart, 2002). However, important questions regarding the purchase behaviour of low-income consumers remain largely unanswered. More specifically, questions regarding the importance and interdependent effect of price and brand on low-income consumers' product preference remain relatively unexplored. In South Africa, this research opportunity is still novel.

This study was undertaken to assess the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examine the effect of different prices and brands on low-income consumers' product preference. The knowledge gained



through this research should ideally facilitate the process of advancing BOP retail research in an academic context, and expand understanding of the effect of price and brands on consumers' decision-making, thereby encouraging improved brand positioning, increased market share and profit optimisation in the managerial context.

### 1.6.1. Research objectives

In line with the problem statement, the primary objective of this study was to *assess the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examine the effect of different prices and brands on low-income consumers' decision-making*. Secondary research objectives (see Figure 1.4) assess the effect of different prices and brands on low-income consumers' product preference. These were:

- To assess the importance of price and brand on low-income consumers' decision-making process.
- To examine effect of different prices ( $P_1 / P_2 / P_3 / P_4 / P_5$ ) and brands ( $B_1 / B_2 / B_3 / B_4 / B_5$ ) on low-income consumers' product preference.

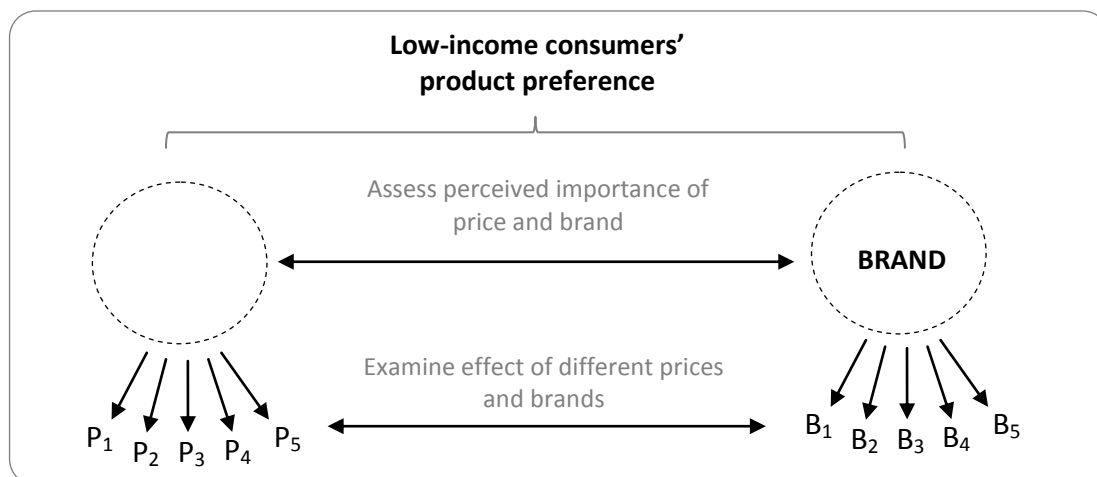


Figure 1.4: Research objectives

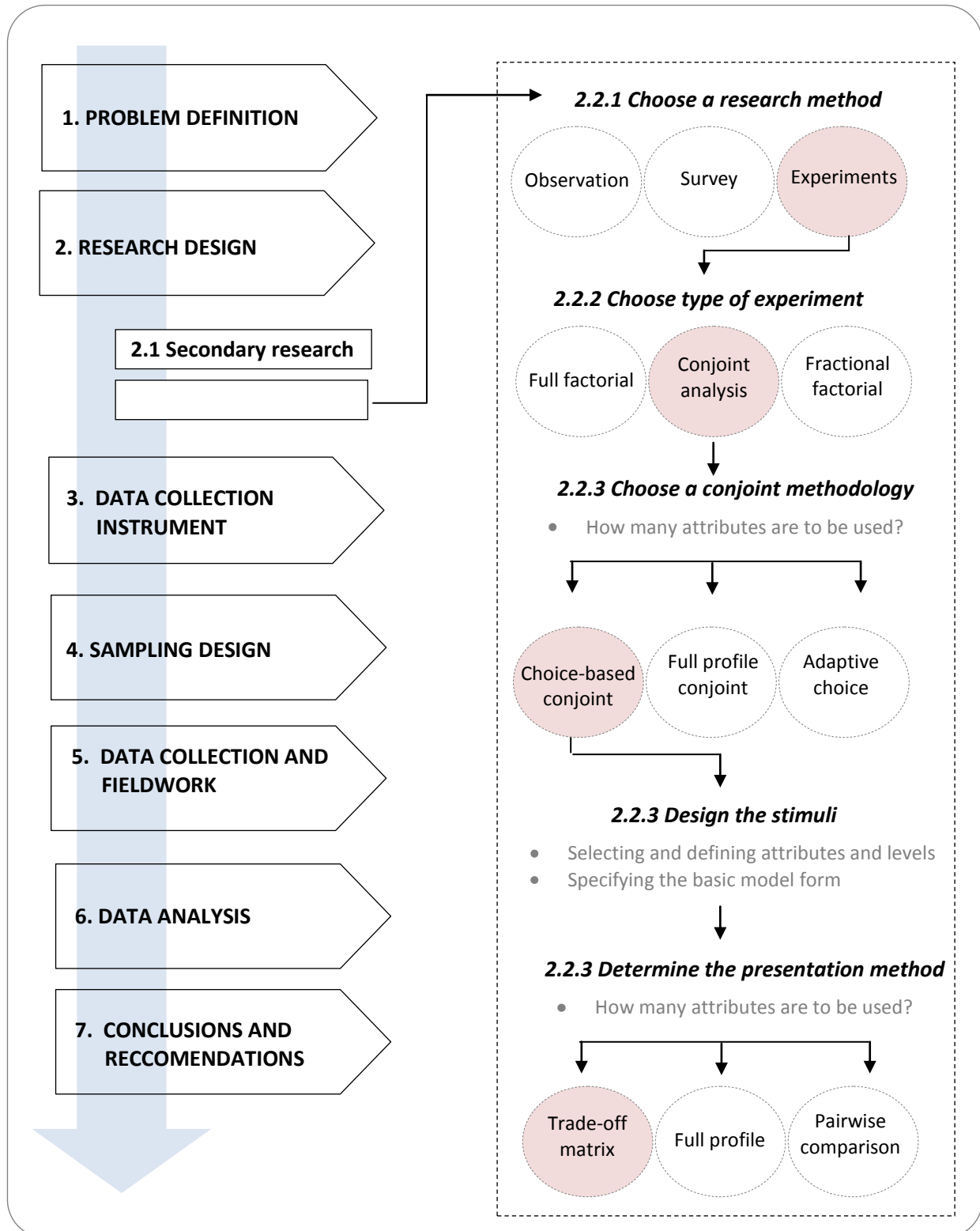
## 1.7. RESEARCH DESIGN

Marketing research calls for the employment of the scientific method when collecting and analysing data to ensure accurate, valid and reliable results and conclusions (Churchill, Brown and Suter, 2010). Figure 1.5 illustrates the marketing research process, showing the research design as the second step in the execution of the current study. The research design specifies the methods and procedures for collecting and analysing the information required to satisfy the research objectives (Churchill *et al.*, 2010; Zikmund *et al.*, 2010).

As part of planning the research design, the basic research method and design technique of both secondary and primary research, the data collection instrument, the sampling design, fieldwork, data collection and data analysis were all considered. The different elements of the research method are discussed in greater detail in Chapter 5.

### 1.7.1. Secondary research

Secondary research (see Figure 1.1), began by exploring consumer decision-making in its field of consumer behaviour, as well examining associated theories of decision-making and the consumer decision-making process, as discussed in Chapter 2. The possible roles of price and brand in the consumer decision-making process were explored in Chapter 3. The background of the BOP proposition, the importance and definition of the BOP market segment, as well as a profile of the BOP consumer were addressed in Chapter 4, providing a contextual framework for the primary research to be conducted. Furthermore, low-income consumers' consumption patterns relating to different product categories were assessed, guiding the choice and operationalisation of the variables of product, brand and price as discussed in Chapter 5. Journal articles, internet sources and books were sourced through secondary research.



**Figure 1.5: The marketing research process**

Source: Adapted from Kotler and Keller (2009), Malhotra (2007)

### **1.7.2. Primary research**

Primary research is specifically conducted to address the research objectives and was undertaken as the value of secondary research was found insufficient to adequately address the research objectives formulated for this study (Churchill *et al.*, 2010). Basic research methods available for primary research can be divided into broad techniques (see Figure 1.5) namely: survey, observation, and experiments (Kotler and Keller, 2009). Guided by the problem statement and research objectives, an experimental design was required. Experimental designs attempt to overcome the lack of market control that exists in marketing and retail research, in view of dynamic and multifaceted consumer decision-making. As illustrated in Figure 1.5, after the primary research method was chosen, various decisions were made to create the appropriate experimental design, beginning with choosing the most suitable type of experiment. The type and design of the experiment depended on the type of data required, the expected level of reliability, and the practical implications associated with the problem under investigation (Walliman, 2006). Further discussion regarding the primary research is found in Chapter 5.

#### **1.7.2.1. Choosing the type of experiment**

The process by which consumers compare brands on sets of determinant attributes, form final choice sets, and make choices is complex (Louviere, 1988). Responding to this complexity, conjoint measurement techniques are the most widely used method of marketing research for analysing consumer trade-offs and measuring consumers' preferences and product choice, thereby modelling buying behaviour (Eggers and Sattler, 2011; Green, Haaijer and Wedel, 2003; Krieger and Wind, 2001; Wittink *et al.*, 1992; Elrod *et al.*, 1992). Conjoint analysis was the most appropriate and effective type of experiment to address the research objectives, and was therefore employed in the current study.

Conjoint analysis is a specific type of preference measurement which can be used in various applications, although it is primarily used in new product planning, improving existing

product offerings, pricing policies, segmentation and distribution (Malhotra, 2007; Gustaffsson, Herrmann and Huber, 2003; Haaijer and Wedel, 2003; Wittink *et al.*, 1994). Conjoint analysis sees products and services as comprising a combination of attributes (such as price, brand and/or benefits) at different levels (different prices, brands and/or benefits) that are evaluated dynamically when consumers face alternatives. This preference measurement attempts to determine the relative importance of these attributes and levels by understanding the value or utilities that individuals attach to them when attempting to maximise their total utility in the purchase decision (Malhotra, 2007).

Conjoint analysis represents a decompositional approach to attempting to elicit consumer preferences (Eggers and Sattler, 2011). Contrary to compositional approaches where respondents evaluate product attributes and levels separately, and a perceived utility is composed of these independent ratings – decompositional approaches evaluate entire products by considering the attributes and levels jointly, and more realistically reflecting consumers' complex decision-making processes (Bakken and Frazier 2006; Haaijer and Wedel, 2003; Green and Srivinasan, 1990). Following the choice of conjoint analysis as the experimental design, the next step in designing the experiment (see Figure 1.5) was choosing the conjoint methodology.

#### **1.7.2.2. Choosing the conjoint methodology**

The choice of the appropriate conjoint methodology was determined by the number of attributes required in order to satisfy the research objectives. There are three main approaches, namely full-profile conjoint, adaptive conjoint and choice-based conjoint, as seen in Figure 1.5 (Bakken and Frazier, 2006). *Choice-based* conjoint methods are an extension of adaptive conjoint methods which allow the simulation of a set of competitive alternatives in the marketplace for no more than six attributes, making it appropriate for the current study (Eggers and Satler, 2011, Louivere and Woodworth, 1983).

Louivere and Woodworth (1983) developed choice-based conjoint (CBC) method by integrating the concepts in conjoint analysis and discrete choice theory, thereby developing a new approach to the design and analysis of controlled consumer choice or resource allocation experiments. These choice experiments allow the researcher to estimate preferences for current product attributes at different levels, as well as predict preferences of combinations of attributes and levels not present (Feit, Beltramo and Feinberg, 2010; Haaijer and Wedel, 2003). Respondents are shown different choice sets of combinations of product attributes at different levels and asked to indicate their preference. The utility of each attribute at respective levels was calculated producing a dynamic and predictive model of buyer behaviour (Eggers and Sattler, 2011).

#### **1.7.2.3. Designing the stimuli**

In line with the process of a conjoint design, and following the identification of the research problem, and the choosing the conjoint methodology, the next step was to design the stimuli made of attributes and levels. Eggers and Sattler (2011) suggest that attributes should be restricted to less than six, and levels should be no more than seven. Attributes and levels must reflect a realistic representation of the marketplace.

Secondary research identified rice, canned fish, chicken and maize meal as possible product categories for the current study. Following semi-structured interviews with store managers and customers in various retailers in the Western Cape, maize meal was chosen as the most appropriate product category.

Maize meal is a known staple food for the low-income market segment, corroborated by staff of the various retailers. This product category offers various product sizes (2.5 kg, 5kg, 10kg, 25kg), at a range of prices. Roughly 20 per cent of LSM 1–4 are medium users (3 to 4 times in the past four weeks) of maize meal, with *Ace* and *White Star* found to be the most popular (SAARF, 2012). Overall, maize meal was accessible for almost all of the low-income market and a popular choice, making it appropriate for the CBC study design.

Attributes of the maize meal were identified as *price* and *brand*. Brands are found to play an important role in consumers' perception and choice of a product (Wang, Menictas and Louviere, 2007; Aaker, 1991), while price is a common additional attribute used in choice experiments, mirroring realistic choice environments (Mahajan, Green and Goldberg, 1982). Although one can argue that taste, texture and colour are also attributes of this product, these factors are not measurable in the context of in-store purchases, but rather rely on subjective prior experience of consumers with particular brands. These are "noise" variables and were considered in the extrapolation of the managerial conclusions. Package size was not subject to experimental variation, and was kept constant. In order to avoid the number-of-levels effect (occurring when levels are not distributed equally across attributes), both attributes were assigned five levels, ensuring that no artificial bias was created between the attributes (Eggers and Sattler, 2011).

The attribute levels for *brand* represented five different brands: two popular existing national brands (*White Star* and *Ace*), one recently re-branded national brand (*Iwisa*), and two hypothetical brands (*Mnandi* and *Ritebrand*). Brand familiarity and perceived quality were suggested to be influential in this market segment, and in the FMCG category. The effects of prior experience and knowledge of brands was thus explored by incorporating well-known brands. The hypothetical national brand and retailer store brand, both unfamiliar brands, allowed for the possible effects of previous experience and brand perceptions to be removed. These brands were designed to mirror the colours and style of the other existing brands showing similar endorsements, so as to create the most realistic but visually similar alternative.

The attribute levels for *price* represented five different price points. These were calculated as follows: the lowest price seen in-store, the average price seen in-store, the highest price seen in-store, 20 per cent higher than the highest price seen in-store and 20 per cent lower than the lowest price seen in-store. In this way, a realistic price range was created using both reference prices consumers were familiar with, and unusually high and low prices. Through

secondary and primary qualitative research the attributes and levels of *price* and *brand* were determined, as shown in Table 1.2.

**Table 1.2: Attributes and levels**

	<b>Brand</b>	<b>Price</b>	
<i>Market leader, familiar</i>	<b>Ace</b>	<b>R18.99</b>	<i>25 % lower</i>
<i>Familiar</i>	<b>White Star</b>	<b>R24.99</b>	<i>Lowest across stores</i>
<i>Familiar</i>	<b>Iwisa</b>	<b>R28.99</b>	<i>Average across stores</i>
<i>Hypothetical, unfamiliar</i>	<b>Mnandi</b>	<b>R33.99</b>	<i>Highest across stores</i>
<i>Hypothetical, familiar</i>	<b>Ritebrand</b>	<b>R42.99</b>	<i>25% higher</i>

#### **1.7.2.4. Selecting the presentation method**

Selecting the presentation method determines the manner in which the choice elicitation task will be conducted, and the manner in which the choice sets will be presented to the respondents using a data collection instrument (Eggers and Sattler, 2011). The different options include using a trade-off matrix, full profile or pairwise comparison, and facilitate the collection of data to be used to determine the utilities associated with each attribute and level (Bakken and Frazier, 2006). Considering the unique target population and specific research objectives developed for the current study, the trade-off matrix method was employed in presenting the alternatives in the choice sets to respondents.

The choice design ( $5^2$ ) created 25 possible attribute-level combinations. When allocated to different choice sets of four (thereby giving respondents an evoked set of four alternatives to choose from), necessary combinations would increase exponentially, making it impractical to collect data. CBC employs computerised searches for the most efficient choice design using the minimum number of sets. The current research design suggested the minimal overlap criterion that requires the “alternatives within a choice set are maximally different from one another” to guide the computerised search and develop the optimal design solution (Eggers and Sattler, 2011: 40). Practically, each respondent was exposed to six choice sets, each with



four price-brand combinations, with no price-level or brand-level being repeated in independent choice sets.

The experimental research design outlined in Figure 1.5 addressed the research objectives while overcoming the expected obstacles associated with low-income consumers' possible literacy challenges through the use of visual stimuli. The CBC analysis and related questionnaire were administered electronically in personal interviews, making use of smart phones, laptop computers and tablets. The choice set central to the CBC was visually displayed and automatically randomised using computer software for each respondent, ensuring that combinations were shown at similar frequency. The dual and interacting influences of price and brand were also accommodated, producing realistic trade-offs between different attributes and levels. The CBC was a useable design incorporating easy-to-understand visual stimuli while accommodating multivariable analysis, mimicking realistic alternatives through the use of a fractional sample. Following the marketing research process, the data collection instrument used to elicit raw data from respondents was developed.

## **1.8. DATA COLLECTION INSTRUMENT**

The choice elicitation task addresses the manner in which the choice sets are presented to the respondents using a data collection instrument (Eggers and Sattler, 2011). An electronic questionnaire was used to collect primary data. Electronic questionnaires allow for the visual elements required for the CBC to be included and easily randomised. Data capturing was also done automatically minimising possible administration errors, as well as bypassing other possible challenges associated with paper-based questionnaires. These challenges include legibility of written answers, missing paper questionnaires, and transporting of completed questionnaires. Although there was a possibility that low-income consumers could be unfamiliar with this technology, cell phone penetration statistics (40% in LSM 1, 62% in LSM 2, 60% in LSM 3 and 71% in LSM 4) suggested that individuals in the target population were capable of understanding an electronic questionnaire (SAARF, 2012). Professional

fieldworkers were employed to assist respondents and guide them through the process in the event of any problems respondents may have had.

Initiating the interview and gaining consent from possible respondents was the first element of the data collection instrument. Fieldworkers began with a brief introduction, informing the potential respondent that research was being done on maize meal. However, in line with the choice of experimental design, the specific focus on price and brands was concealed, reducing the risk of respondent bias toward the key variables of the current study (Hamlin *et al.*, 2012). Requiring prior experience with the chosen product category; individuals were asked a screening question before continuing to the choice sets.

The questionnaire used in the study constituted four parts with questions pertaining to: the choice sets showing price and brand alternatives established in the experimental design, demographic information of respondents used to understand the lifestyle of the realised sample, basic information regarding purchase behaviour, and psychographic information regarding respondents' attitudes toward brands and price. The questions were scrambled to reduce potential order bias and respondent fatigue from skewing the data collected. Pre-testing with individuals satisfying the criteria for the target population ensured that the price points and brands chosen were realistic and appropriate. As part of the pre-testing, individuals were asked to explain the meaning of the items used in the data collection instrument to promote high levels of comprehension, and ensure that the data collected was a reliable reflection of the respondents' answers and preferences.

## **1.9. SAMPLING DESIGN**

The next step in the marketing research process (Figure 1.5) is the sampling design which is developed to select the unit of analysis, as identified in the problem statement. The practical decisions guiding the sample design of the current study are summarised in Table 1.3, and are discussed as follows.

**Table 1.3: Overview of sampling design**

STEPS	PRACTICAL IMPLICATIONS
<b>Identify the target population</b>	<ul style="list-style-type: none"> <li>• Living in South Africa</li> <li>• Black female</li> <li>• &gt;18 years of age</li> <li>• LSM 1-4</li> <li>• Purchases maize meal</li> </ul>
<b>Determine the sampling method</b>	<ul style="list-style-type: none"> <li>• Non-probability method: <ul style="list-style-type: none"> <li>• Judgement sampling</li> </ul> </li> </ul>
<b>Establish the sample size</b>	<ul style="list-style-type: none"> <li>• 200 respondents</li> </ul>
<b>Draw the sample</b>	<ul style="list-style-type: none"> <li>• Surrounding areas of Johannesburg were chosen, namely Vosloorus, Winnie Mandela, Mandela Evaton North, Evaton Red Cross, Boipatong, Sharpeville, Sebonkeng Ext 2 and Orange Farm in Gauteng.</li> <li>• Individuals in these areas were identified according to set criteria.</li> </ul>
<b>Conduct fieldwork</b>	<ul style="list-style-type: none"> <li>• Interviewer-assisted electronic questionnaires</li> </ul>

The target population for this study was any female over the age of 18 years who fell into the LSM 1–4 categories as outlined by the All Media and Products Survey, who was classified as “black” in race (excluding Asian, Indian and Coloured ethnicities), who did the majority of her shopping in the urban areas; purchased maize meal as part of her grocery shopping and lived in South Africa. The LSM categories, an established and popular means of segmenting the South African population into socio-economic strata, are suggested to target individuals who fall into the BOP market, thereby excluding those in higher income brackets (Ungerer and Joubert, 2011). On average, over 81 per cent of individuals falling within the LSM 1–4 categories have bought maize meal, reinforcing the current product category in the primary research (SAARF, 2012).

The age specification targeted both young and mature adults, excluding young children from the study. Women were targeted as they generally represent the primary decision-makers in the household, and constitute over 50 per cent of both LSM 1 and LSM 2 categories (SAARF, 2013). With over 95 per cent of LSM 1–4 reported to be part of the black population group, this was the target ethnicity for the study. With the exclusion of Indian, Coloured and Asian

individuals, the effect of different cultures on the responses, as well as differing product and brand preference, was minimised (SAARF, 2012).

Dealing with a largely fragmented and informal target population, and with no sampling frame being a comprehensive list of all the sample units in the population available, a non-probability sampling method was employed (Zikmund *et al.*, 2010: 395). Following the judgement sampling method that identified informal settlements in Gauteng, professional fieldworkers conducted interviewer-administered electronic questionnaires in respondents' homes and at taxi ranks in the areas (76% of individuals in this area reported that they had bought maize meal) (SAARF, 2013).

Owing to limitations of time and resources, the sample size was set at 200 respondents drawn from the appropriate target population. This sample ensured the collection of sufficient data to analyse, interpret and draw generalisable conclusions and inferences from the target population, while still remaining practical for the researcher. Overall, 303 respondents were approached, resulting in 209 completed questionnaires.

#### **1.10. DATA COLLECTION AND FIELDWORK**

Primary data was collected via fieldwork. The current study employed interviewer-administered electronic questionnaires, where professional fieldworkers approached appropriate subjects in their homes, or at local taxi ranks. Personal interviews allowed for interactive communication between fieldworkers and subjects through engaging in conversation (Zikmund *et al.*, 2010: 208). This was a “versatile and flexible” method that facilitates two-way conversation between the interviewer and respondent (Zikmund *et al.*, 2010: 209).

This type of data collection was effective in dealing with reluctant individuals – because interviewers could reassure them of the confidentiality of their responses – and in minimising the chance that subjects misinterpreted the questions, as well as avoiding item non-response

error. Dealing with a target population with potentially limited literacy skills further supported the choice of the interviewer-administered method of collecting primary data. Interviewers were also able to offer clarity and further instructions regarding questions and to use visual aids and stimulus to enhance understanding and encourage participation.

The sample quota was divided across two areas in the east and south of Gauteng. Supervisors oversaw the project and were responsible for briefing the fieldworkers on the nature of the project, ensuring they received the link to the data collection instrument, and outlining the appropriate behaviour when conducting interviews. Laptops, smart phones and tablets were used for running the electronic questionnaire.

The first area focused on the eastern side of Gauteng in the suburbs of Boksburg, Brakpan and Kempton Park. Fieldworkers worked in the informal settlements of Vosloorus, Winnie Mandela and Mandela. After establishing a central meeting point in a local house, they recruited respondents and conducted interviews. The second area focused on the southern part of Gauteng between Johannesburg and Vanderbijlpark. Informal settlements of Evaton North, Evaton Red Cross, Boipatong, Sharpeville, Sebonkeng Extension 2 and Orange Farm were visited by fieldworkers who also interviewed respondents in their homes or at a taxi rank in the areas. These two areas were chosen according to judgement sampling considering the strict income and demographical parameters set in establishing the target population, and this ensured that an accurate and realistic sample was drawn.

### **1.11. DATA ANALYSIS**

Haaijer and Wedel (2003) identify several marketing questions that can be answered through the analysis of the observed data of CBC experiments. Researchers are able to determine the relative importance of attributes and levels, the overall utility of specific profiles, and to identify individual differences. With this in mind, the analysis and interpretation of consumer preference values was done conjointly rather than examining the variables independently.

The analysis of the raw data is the sixth step of the marketing research process (Figure 1.3), and constituted both descriptive and inferential analysis, discussed in detail in Chapter 6.

#### **1.11.1. Descriptive analysis**

Data analysis began with descriptive statistics to identify the basic characteristics of the realised sample. In addition to completing the choice experiment questions, respondents were asked to provide socio-economic information including age, employment and income, education and as well as information regarding household appliances (which related to LSM criteria). Descriptive analysis of the purchase frequency, brand preference, store preference, psychographic information and count analysis reflecting respondents' choices was also conducted to provide an overview of the behaviour, attitudes and preferences of the realised sample.

#### **1.11.2. Inferential analysis**

The inferential analysis allowed for inferences to be drawn regarding the target population based on observations of the realised sample, and for recommendations to be extrapolated (Kotler and Keller, 2009). The hierarchical Bayes procedure was used to transform the raw data from the CBC into utilities associated with price and brand, at their respective levels. The hierarchical Bayes procedure was chosen because it considers heterogeneity in terms of individual-level differences in brand preferences and price sensitivity, unlike other procedures such as aggregate-level maximum likelihood estimation, which do not (Eggers and Sattler, 2011).

Guided by the research objectives, hypotheses were formulated and tested. A one-sample t-test was used to assess respondents' perceived importance of price and brand. Two-way repeated measures analysis of variance (ANOVA) were used to test for significant differences in perceived utility associated with the different levels of price and brand, thereby assessing the effect of price and brand on low-income consumers' product preference.

The multinomial logit model (MNL) is the most frequently used model to analyse such conjoint choice experiments, and thus was also used for the inferential analysis of the current data (Haaijer and Wedel, 2003). The MNL derived the purchase probability of different price-brand combinations that were used to simulate market conditions, thereby examining the effect of different sets of alternatives on low-income consumers' product preference.

### **1.12. ETHICAL CONSIDERATIONS**

The current research study was classified as holding low risk for potential respondents. In line with the framework provided by the University of Stellenbosch, "the probability or magnitude of harm or discomfort anticipated in the research is not greater in itself than that ordinarily encountered in daily life". The targeting of low-income consumers, however, did require a sensitive approach by fieldworkers and researchers to ensure that individuals did not feel any form of embarrassment or discomfort in light of their socio-economic status.

### **1.13. SUMMARY OF THE STUDY**

Chapter 1 provides an overview of the current study, introducing the key concept of consumer behaviour, the variables of price and brand, the context of BOP, and the subsequent formulation of the problem statement. Chapters 2, 3 and 4 employ secondary research and explore existing literature on consumer behaviour and decision-making, price and brand and the background of the BOP. Chapter 5 is devoted to the research method that reiterates the problem statement and discusses the secondary and primary research, the data collection instrument, sampling procedure for selecting units of analysis, fieldwork, data analysis as well as ethical considerations. Chapter 6 discusses the results of the primary research through descriptive and inferential statistics. The research conclusions and managerial implications in Chapter 7 close the current study and provide actionable insights into the effect of different prices, and brands on low-income consumers' product choice.

## CHAPTER 2 | CONSUMER DECISION-MAKING

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### 2.1. INTRODUCTION

As articulated by Bristow, Schniedier and Schuler (2002: 343), “consumers face the task of searching for, evaluating and differentiating among a plethora of comparable products that may be capable of satisfying consumers’ needs”, perhaps now more than ever before. Growing competition, fuelled by globalisation, has increased the number of alternatives across almost all product categories, leaving consumers overloaded with information and overwhelmed for choice. The increase in the number of alternatives also puts pressure on firms to differentiate from their competitors by providing value-added products and services (East and Vanhule, 2013). In order to achieve customer satisfaction, marketers require greater insight into the complex and dynamic strategies that consumers employ in their daily decision-making process. Understanding consumer decision-making falls within the field of consumer behaviour and attempts to untangle the complex processes that influence consumers’ product evaluation, preference and choice.

Consumer decision-making, falling within the field of consumer behaviour, provides a theoretical starting point for the secondary research addressing the research objectives discussed in Chapter 1. As illustrated in Figure 2.1, Chapter 2 provides an overview of the field of consumer behaviour, discusses the theories that underpin consumer decision-making which can explain certain consumer behaviours, and closes with an examination of the practical steps consumers undertake in the decision-making processes. The concepts of brand and price, and their various roles in consumers’ decision-making processes are discussed in Chapter 3, which addresses the other elements of the research objectives.



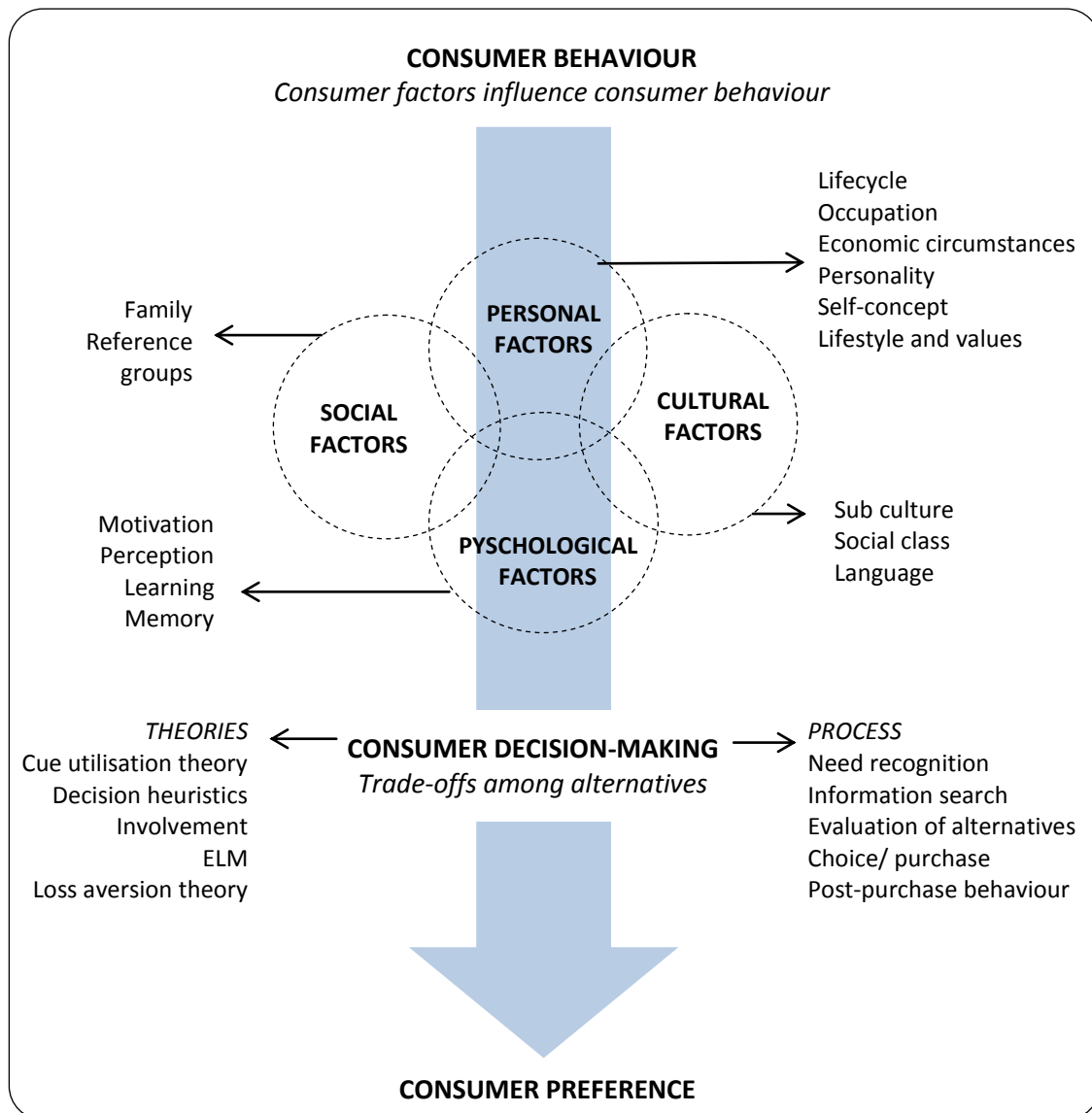


Figure 2.1: Consumer decision-making

## 2.2. CONSUMER BEHAVIOUR

Consumer behaviour can be interpreted as “the intersection of the individual’s learning history and consumer setting, which signals utilitarian and informational consequences associated with consumption-related response”, or in other words, consumer decision-making (Foxall *et al.*, 2011). This behavioural perspective of consumer behaviour highlights the various elements that may influence consumer decision-making, including psychological factors (memory, learning, perception, motivation), the purchase context (product range,

brand, price) and the cognitive process of evaluating alternatives and making trade-offs among attributes of varying utility, influenced by consumer characteristics.

As outlined by Foxall *et al.* (2011), consumer behaviour has received increased attention in the field of marketing and marketing research over the past decades, (East and Vanhuele; 2013; Jobber, 2004; Kotler, Armstrong, Saunders and Wong, 2001; Keith, 1960), reiterating the importance of understanding consumer behaviour and decision-making. Practically defined, consumer behaviour includes the study of how individuals, groups, and organisations buy, use, and dispose of goods and services, ideas or experiences to satisfy their needs and wants (East and Vanhuele, 2013; Parumasur and Roberts-Lombard, 2012; Kotler and Keller, 2009; Blackwell, Miniard and Engel, 2001). Cant, Brink and Brijball (2002:4) provide a more elaborate definition of consumer behaviour to include an analysis of consumer consumption by answering “what [consumers] buy, why they buy it, when they buy it, where they buy it, how often they buy it and how often they use it”. These definitions also corroborate Bagozzi’s (1975) theory of marketing as exchange, which suggests that most human dealings can be understood as a form of market exchange, where consumer behaviour is the product of these different exchanges (Murgolo-Poore *et al.*, 2003).

Various models have been developed to understand consumer behaviour (East and Vanhuele, 2013; Parumasur and Roberts-Lombard, 2012; Kotler and Keller, 2009; Blackwell *et al.*, 2001), emerging from different fields of study, particularly economics, sociology and psychology (Foxall *et al.*, 2011; Murgolo-Poore, Pitt and Berthon, 2003). The stimulus-response model outlines the process by which external factors (including marketing strategies surrounding brand and price) which enter the consumer’s consciousness, combined with unique consumer characteristics (social, cultural and personal factors) and consumer psychology (motivation, learning, perception and memory) – are seen to influence the buying-decision process and possible purchase decision (East and Vanhuele, 2013; Kotler and Keller, 2009; Bornemann and Homburg, 2011; Aaker, 1991; Monroe, 1976). This section

briefly outlines the key interrelated factors which may influence consumer behaviour, in order to understand their role and importance in the decision-making process.

### **2.2.1. Cultural factors**

Cultural factors include culture, subculture and social class. Culture can be defined as the individual views, personal dynamics, and social rules that characterise a group of people, creating a unique and learned identity (Ball, McCulloch, Geringer, Frantz and Minor, 2003: 124). Culture is a way of living, created by groups of human beings and transmitted from one generation to another. It is “environmentally orientated” which can be enacted through social institutions such as family, religion and government; is built upon both conscious and unconscious or intrinsic values, ideas and attitudes; and can manifest in both material and non-material components (Keegan and Green, 2013).

Broad cultures can also be subdivided into smaller subcultures that “provide more specific and identification for their members” (Kotler and Keller, 2009: 190). Each subculture has unique ideas, perceptions and habits that influence lifestyle and lifestyle choices, including product choice. Within the multicultural and diverse South African context, recognising the possible influences that different cultural beliefs and practices have on consumer behaviour and decision-making becomes important when exploring the possible role of price and brands in consumer decision-making.

Cultural factors are seen as the most influential elements in affecting consumer behaviour and the “fundamental determinant of a person’s wants” and perceived needs (Kotler and Keller, 2009: 190). According to Pantano (2011), culture-related factors (language, cultural practices and traditions) can have a direct influence on consumers’ perceptions of products, brands and prices, thus influencing consumers’ preferences.

### **2.2.2. Social factors**

Social factors influencing behaviour include all “effects on buyer behaviour that result from interactions between a consumer and the external environment” (Lamb *et al.*, 2008: 84). These factors represent both independent and interdependent personal and collective influences on consumer behaviour.

According to Bearden and Etzel (1982: 183), “people act in accordance with a frame of reference produced by the groups to which they belong”. Reference groups such as family, as well as associated social roles and statuses are related to the social factors influencing consumer behaviour (East and Vanhuele, 2013). Reference groups include all groups of people with a direct or indirect influence on an individual’s attitude, lifestyle or behaviour.

Membership groups such as families, colleagues and friendship circles, represent those groups with which one interacts fairly regularly. Family in particular is influential in guiding and shaping consumer behaviour. Families can be defined as “normative reference groups” as they are the source of individual and collective identity and illustrate personal norms, attitudes and values (Childers and Rao, 1992: 198).

Aspirational groups are those one wishes to join, while conversely, dissociative groups are those one looks to avoid. These different groups are governed by different social dynamics, often reflected through behaviour, and in the marketing sense, product/service choice and brand preference (Kotler and Keller, 2009). Reference groups can both encourage certain behaviours, while also discourage others through the pressures of conformity, in line with group identity (Childers and Rao, 1992).

### **2.2.3. Personal factors**

Personal factors may also influence consumer behaviour (Kotler and Keller, 2009; Silvera Lavack and Kropp, 2008; Solomon and Stuart, 2005). Although difficult to quantify, these individual elements are discussed by examining the role of family structure and stage in life

cycle, occupation and economic circumstances, personality, attitudes and self-concept as well as lifestyle and values (East and Vanhuele, 2013; Kotler and Keller, 2009).

Family structure refers to the number, age and gender of people in the household at any given time, while the family life cycle refers to “an orderly series of stages through which the consumers’ attitudes and behavioural tendencies evolve” (Lamb *et al.*, 2008: 91). This “evolution” can be influenced by maturity, life events such as marriage and children, and different income and status. Different life stages trigger different needs, product preferences and purchase behaviour. Product choice can also be influenced by economic circumstance as the monetary cost of goods requires disposable income (Kotler and Keller, 2009). The economic circumstances of an individual can be determined by their relative level of economic stability, savings and assets held, borrowing power, debts, as well as attitudes toward spending and saving.

Personality is defined as the “set of distinguishing human psychological traits that lead to relatively consistent and enduring response to environmental stimuli” (Kotler and Keller, 2009: 198). This includes buying behaviour, and implies a link between individuals’ personalities and their product choices and brand preferences (Brody and Cunningham, 1968). This link is explained by “brand personality” – the idea that brands themselves can be associated with certain human personality traits. Consumers therefore are more likely to choose products that emulate personalities that best match their own. In this sense, personality becomes a useful variable in analysing consumer brand and product choices (East and Vanhuele, 2013; Kotler and Keller, 2009: 198; Brody and Cunningham, 1968). Although not a defined variable in this particular study, the effect of personality and self-concept is recognised as a potential extraneous variable on consumer choice, and may be applied to understand certain product choices.

Lifestyle and values, linking back to culture and social class, also influence consumer behaviour and decision-making (Solomon and Stuart, 2005). Values can be defined as an

enduring beliefs supporting a specific mode of conduct, which are built into a “value system” which is an enduring organisation of beliefs concerning preferred modes of conduct (Rokeach, 1973). Values, in particular, have been found to influence various aspects of consumption behaviours and attitudes (Jayawardhena, 2004). With this in mind, personality and attitudes can be conceived of as a system of values which influence consumers’ perceptions, motivations and ultimate choices. Consumer attitudes – defined as “an individual’s internal evaluation of an object” – associated with personality, are thus also seen as influential in consumer decision-making (Zarantonello and Schmitt, 2010; Mitchell and Olson, 1981). These different elements of personal factors are recognised as possible influencers of consumer behaviour.

#### **2.2.4. Psychological factors**

Psychological factors provide the cognitive link between the external cultural, social and personal factors and the consumer decision-making process (see 2.4). Consumer psychology explores the effect of prior experience, choice history and knowledge with which individuals enter the purchase decision (East and Vanhuele, 2013; Monroe, 1976; Papatla and Krishnamurthi, 1992). Psychological factors of motivation, perception, learning and memory have been delineated to describe the internal processes that directly affect and facilitate consumer decision-making and behaviour, and are also seen to link to the theories of decision-making (see 2.3).

Motivation can be defined as the willingness to act to satisfy a certain need and can be seen as the initiator of the need recognition phase of the consumer-buying process (Lamb *et al.*, 2008). Perception, in turn, is the “process by which [consumers] select, organise and interpret information inputs” to construct a meaningful context for individuals’ decision-making (Kotler and Keller, 2009: 203).

Perception can be defined as the subjective manner in which individuals select, organise and interpret internal and external stimuli to make sense of their world, (Joubert and Poalses,

2012; Pantano, 2011). Different perceptions of the same object (and characteristics of that object such as price and brand) can thus emerge from different consumers owing to unique perceptual processes. These processes include *selective attention*, which refers to the “allocation of processing capacity” on particular stimuli, *selective distortion*, which refers to the influence of one’s preconceptions of the interpretation of information, and *selective retention*, which refers to what is remembered or retained in memory from specific experiences or in terms of information (Lamb *et al.*, 2008; Silvera *et al.*, 2008; Solomon and Stuart, 2005; Hoeffler and Keller, 2003). These different processes can affect consumers’ perceptions of brand and price (see Chapter 3) and subsequent consumer choice.

Learning “induces change in our behaviour arising from experience” through shaping ideas, understanding, beliefs and attitudes (Kotler and Keller, 2009) while memory refers to all the information, experiences, knowledge, frames of reference, associations and understanding that are stored within individuals’ cognitive capacity. Memory provides a database of information that can be used in the consumers’ decision-buying process by creating benchmarks, facilitating comparisons and generating associations (Kotler and Keller, 2009).

The review of existing theory surrounding consumer behaviour addresses the many dynamic variables that may influence how consumers choose, purchase, use and dispose of products and services. This literature recognises that before consumers enter the purchase context, they have existing experience and knowledge, built upon social norms, which can affect their perceptions of attributes of different products, including price and brand. Although it is difficult for the marketer to manipulate these factors, it is imperative that they are taken into account when developing the value proposition. The field of consumer behaviour provided a theoretical framework in which the theories and process of consumer decision-making could be better understood. Attention is now turned to the theories of consumer decision-making that explore the complex trade-offs that individuals make when faced with alternatives, which are later applied to the context of price and brand in Chapter 3.

### 2.3. THEORIES OF DECISION-MAKING

Classic economic theory describes the consumer as a rational being with access to perfect, comparable information (Ding, Ross and Rao, 2010; Jackson, 2005; Putler, 1992; Tull, Boring and Gonsior, 1964). Following the theory of reasoned action (Bagozzi, Baumgartner and Yi, 1992; Fishbein and Ajzen, 1975) and the theory of planned behaviour (Lynne, Casey, Hodges and Rahmani, 1995; Azjen, 1985), individuals' are also seen to make wholly rational choices, based on systematic utilitarian trade-offs of costs versus benefits of available alternatives. According to this utilitarian model of consumer choice (Russel and Wilkinson, 1979), the classical consumer is fully aware of product-price alternatives available and with consistent preferences, is able to calculate the marginal utility of each alternative and choose that which provides greatest utility for the least sacrifice (Begg, Fischer and Dornbusch, 2003, Mas-Colell, Whinston, and Green, 1995).

However, the real-world consumer's decision-making and subsequent purchases are frequently made with varying levels of uncertainty regarding the products available and their respective attributes, questioning the applicability of the economic theory (Jackson, 2005; Dawar and Parker, 1994; Tull *et al.*, 1964; Monroe, 1976; Jacoby *et al.*, 1971). Subsequently, Lancaster's 1966 research, in an attempt to develop the basic economic theory of consumer preference, proposed that consumer preferences for goods are not formed on the basis of the product itself, but on the attributes that those products possess and value for individual consumers. Although this is a more complex and dynamic theory of consumer choice, Jackson (2005) challenges it as still being unable to fully address and accommodate the underlying social and social-psychological structure of consumer preferences (discussed under 2.2).

The abovementioned limitations of economic theory in addressing the complexity of consumer decision-making illustrates a gap in understanding which marketing theory, particularly that of consumer behaviour, has begun to close.



Lynch and Zauberman (2007) highlight key determinants of consumer choice – those which the consumers consider in the decision-making process. To understand consumers' unique and dynamic decision-making process the available alternatives; the information that is processed in evaluating each alternative; the way in which the above inputs are combined to produce the decision-outcome; as well as the effect of prior decisions and experiences on the above must be considered. Various theories attempting to deconstruct the consumer decision-making process are now discussed as follows. *Cue utilisation theory, decision heuristics, consumer involvement, the elaboration likelihood model and loss aversion theory* all provide key insights into the various decision strategies employed by individuals.

### **2.3.1. Cue utilisation theory**

Cue utilisation theory conceptualises products as an array of extrinsic and intrinsic cues that serve as quality or other attribute indicators for consumers (Bian and Moutinho, 2011; Olsen *et al.*, 2011; Collins-Dodd and Lindley, 2002). Collins-Dodd and Lindley (2002) describe extrinsic cues as peripheral cues related to the product such as brand name, price packaging (Beneke, 2010; Clement, 2007) and store name – while intrinsic cues are the characteristics of the core product itself, such as ingredients, taste, smell and texture.

Kent and Rao (1989) drawing from Olson (1973), corroborate this theory by suggesting that consumers use a variety of cues to infer product quality. Dick *et al.* (1997) further support these findings, concluding that consumers base their judgement of brand quality on direct factors (attributes of the product such as ingredients, taste and texture) and indirect factors (price and brand name). According to this theory, products and services can be viewed by both consumer and firm as a bundle of perceived intrinsic and extrinsic attributes which suggest perceived value or risk to consumers (Bian and Moutinho, 2011).

### **2.3.2. Decision heuristics**

Facing uncertainty, limited information, resources and time – together with an array of alternatives – consumers employ simplifying heuristics in making decisions (Hoyer and

Brown, 1990). Decision heuristics, or rules-of-thumb and bias, are cognitive shortcuts that consumers may take when confronted with a decision (March and Heath, 1994). Applicable heuristics are discussed in the light of their possible effect on consumer decision-making.

The availability heuristic puts greater decision weight on information that is most readily recalled (that is, comes to mind first), applicable to *brand familiarity* and *brand recognition*, as well as *reference pricing* and *price recall* discussed in Chapter 3 (Tversky and Kahneman, 1973; Ofir *et al.*, 2008). The representative heuristic attaches weight to the level that a single brand seems to reflect an entire category, regardless of its independent attributes. When this decision heuristic is used, experience with one object or encounter is projected onto all those in the same perceived category, which links to the private label branding strategies discussed in Chapter 3.

The anchoring and adjustment heuristic causes consumers to adjust their decisions in light of additional information (Kotler and Keller, 2009; March and Heath, 1994). Competitors' prices and advertising, and the sequence in which information is received and processed can affect consumers decision-making, product preference and ultimately choice. The recognition heuristic (Thoma and Williams, 2013), suggests that if employed, consumers will prefer recognised objects (products and brands) over unrecognised objects, regardless of any other available relevant information. The possible influence of the recognition heuristic on consumer preferences (Hauser, 2011), can be linked to other concepts such as *brand awareness*, and *brand familiarity* (also discussed in Chapter 3).

Decision heuristics help consumers make expedient choices when faced with many alternatives and with conflicting information. However, these decision rules can also skew consumers' perceptions of price and brand. The "compromise effect" is one such consequence of decision heuristics employed by consumers (Müller, Knoll and Vogt, 2012). The compromise effect occurs when the middle option of a consideration set is perceived to be more attractive by consumers and therefore more likely to be chosen than extreme

alternatives (Kivetz, Netzer and Srinivasan, 2004). This occurs when a consumer's point of value shifts, as they attempt to find reasons to justify their choices (Simonson, 1989). Decision heuristics may have possible influences on consumers' decision-making, and are considered when developing conclusions, and extrapolating recommendations in Chapter 7.

### **2.3.3. Consumer involvement**

The theories of consumer involvement and the elaboration likelihood model (refer 2.3.4) build upon the cue utilisation theory, giving further insight into how consumers process information and evaluate alternatives in the decision-making process (Hamlin, 2010). According to Lockshin, Spawton and Macintosh (1997), the concept of product involvement has been linked to product choice behaviour in previous research (Flynn and Goldsmith, 1993; Kapferer and Laurent, 1993; Steenkamp and Wedel, 1991; Mittal and Lee, 1989; Laurent and Kapferer, 1985). Consumer involvement theory suggests that different consumers will have varying degrees of involvement in different product attributes at (Chen, Chen and Huang, 2012).

Consumer involvement can be defined in terms of “the level of engagement and active processing the consumer undertakes in responding to a marketing stimulus” (Kotler and Keller, 2009: 214). This “level of engagement” can be further unpacked by distinguishing between “high involvement and low involvement purchases” (Meldrum and McDonald, 2007: 71). The higher the consumers' involvement in the purchase, the greater cognitive energy they invest in the decision, and the more complex the different stages of the decision-buying process become.

Consumer involvement received significant attention when Laurent and Kapferer (1985) developed a four-faceted “consumer involvement profile” that attempted to operationalise consumers' involvement in products (Mittal and Lee, 1988). The four facets cover the importance of the product, perceived risk associated with the product purchase (comprising the perceived importance of negative consequences from a poor choice and the perceived

probability of making such a mistake), the symbolic value and the hedonic value of the product. The four facets were then used to profile consumers in order to predict brand and product choice behaviour.

Consumer product involvement can be further differentiated into brand decision involvement (the interest taken in selecting the brand) and purchasing involvement (the interest taken in the purchase activity) (Lockshin *et al.*, 1997). Consumers differ according to the interest taken in selecting certain product categories, the brand within the category as well as the purchasing activity itself. Petty, Cacioppo and Shuman (1983) argue that while high involvement consumers emphasise intrinsic cues, low involvement consumers focus more attention on extrinsic cues when evaluating different product and brand offerings.

The involvement matrix (Table 2.1) discussed by Kotler and Keller (2009), develops the different levels of consumer involvement, comparing them to the degree of product differentiation and then linking them to different forms of buying behaviour. According to this model, if consumers perceive significant differences between available brands, they will either exercise complex buying behaviour requiring high involvement, greater time, resources and cognitive effort – or they will show variety-seeking behaviour where, with lower involvement, they will expend less time and resources in looking to try out different brands and alternatives.

**Table 2.1: Consumer involvement and buying behaviour**

PRODUCT DIFFERENTIATION	LEVEL OF INVOLVEMENT	
	High involvement	Low involvement
<b>Significant differences between brand</b>	Complex buying behaviour	Variety-seeking behaviour
<b>Few differences between brands</b>	Dissonance-reducing buying behaviour	Habitual buying behaviour

In turn, if consumers perceive few differences between brands (often the case with homogenous products), they will exercise dissonance-reducing buying behaviour or habitual

buying behaviour. The former behaviour is governed by high involvement, requiring greater time and cognitive effort and aims at minimising the risk of post-purchase regret. The latter behaviour requires less involvement and sees consumers considering past experience, previous choice and the images associated with brand names, when making present choices – often employed in the purchase of products in the FMCG (Joubert and Poalses, 2012; Hamlin, 2010). Thus the level of involvement a consumer invests in the decision-making process, may relate to the perceived importance of the cues utilised, such as price and brand as in the case of the current study.

#### **2.3.4. Elaboration likelihood model**

Petty and Cacioppo's (1984) elaboration likelihood model (ELM) is an "influential model of attitude formation and change [and] describes how consumers make evaluations in both high- and low-involvement circumstances" (Kotler and Keller, 2009: 214). In this model, two different means or routes of persuasion are identified. The central route follows rational reflection of the most important product attributes, while the peripheral route places greater weight on positive and negative association individuals may hold with a certain product (Cacioppo and Petty, 1984). Consumers require suitable store brands and products or service knowledge, as well as enough time and appropriate product setting to follow the central route. These are often lacking and individuals are forced to draw on more extrinsic factors to follow the peripheral route. It is important to understand which route consumers are taking to better understand the factors influencing people's decision-making and choice. This model can be applied to both high- and low-income consumers.

#### **2.3.5. Loss aversion theory**

Loss aversion theory predicts negative changes within an individual's environment to have a greater psychological impact than equal positive changes. In other words, it argues that individuals are more likely to avoid loss than look to achieving a similar gain. First conceptualised by Kahneman and Tversky in 1979 in the context of prospect theory, this

approach to consumer behaviour has far-reaching economic and marketing significance (Kotler and Keller, 2009; Hoeffler and Keller, 2003; Tversky and Kahneman, 1991).

These authors briefly unpack four separate components of loss aversion theory, namely neural, cognitive, affective and conative. These reveal the key elements responsible for the idea of “losses looming larger than gains” (Paraschiv and L’Haridon, 2008: 67). The neural component of the theory attributes this tendency to the activation of different areas of the brain, with encounters of loss manifesting as a form of fear. The cognitive element focuses more on the information processing in the decision-making during the transaction itself. The affective component identifies goods as “objects of attachment” which, if positive, can increase the aversion to its loss. Lastly, the conative component places significance on the idea of ownership and control, where, if an object is perceived to be owned, the tendency to avoid losing it increases (Paraschiv and L’Haridon, 2008).

Loss aversion theory relates directly to the concept of perceived risk and return, also linking back to the four facets of the “consumer involvement profile” discussed in 2.3.3, and to cue utilisation theory as discussed in 2.3.1. In all decisions, different alternatives hold varying degrees of associated perceived risk. Consumers must assess this risk, estimate the expected return, and compare the two. The optimal choice, if consumers are employing the decision rule of maximum utility, would be the option that provides the positive difference between risk and return. Whether or not consumers employ this rational decision rule (as supported by the loss aversion theory) is the question explored in the current study assessing the effect of price and brands on low-income consumers’ choice behaviour.

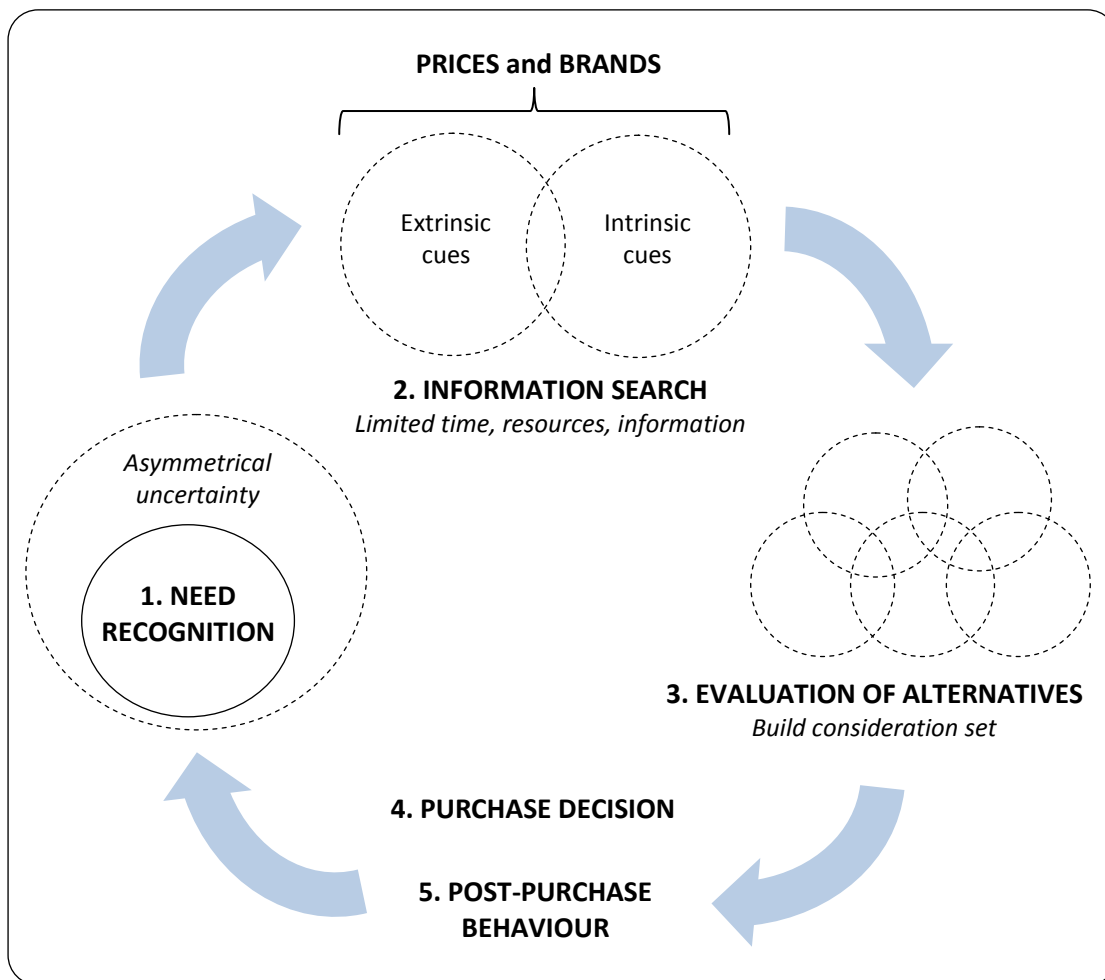
The review of literature on the theories underpinning consumer decision-making provides a theoretical foundation to understand the practical process of decision-making to be discussed in the following section. These different theories contextualise various consumer factors influencing consumer behaviour (see 2.2), building a theoretical bridge between consumer behaviour and strategies that consumers can employ in the decision-making process.

## **2.4. CONSUMER DECISION-MAKING**

Consumer decision-making can be understood through the various strategies that individuals employ when faced with uncertainty. Individuals search, find and evaluate certain cues (pieces of information) that are used in the evaluation of possible alternatives. As outlined in Chapter 1, the purpose of the current study is to measure the importance and effect of prices and brands on low-income consumers' product preference. Price and brand (Chapter 3) were thus identified as extrinsic and intrinsic cues that provide information to individuals, possibly influencing their decision-making process. Following a review of literature surrounding consumer behaviour and theories of consumer decision-making, this section discusses the practical steps taken in consumer decision-making. The consumer decision-making model illustrated in Figure 2.3 (as shown in Figure 1.2) outlines generic steps (need recognition, information search, evaluation of alternatives, purchase decision and post-purchase behaviour) that the consumer goes through in the decision-buying process, each briefly discussed as follows (East and Vanhuele, 2013; Kotler and Keller, 2009).

### **2.4.1. Need recognition**

The first stage of the buying decision process is the triggering of a need by internal or external stimuli. Different problems drive different levels of need that may be urgent, routine or discontinuous (Kotler and Keller, 2009). Consumers' needs can also be linked to the symbolic and functional positioning of brands where functional brands may satisfy practical and utilitarian needs, while symbolic brands may satisfy needs of self-expression, prestige and status (Bhat and Reddy, 1998). Consumers may be driven by different motives triggering different needs (utilitarian or symbolic or both), that are satisfied by different products or services. Need recognition activates the second step of the decision-making process, where consumers search for information to lead to their need being satisfied.



**Figure 2.3: Consumer decision-making process**

Source: Adapted from Kotler and Keller (2009)

#### 2.4.2. Information search

After recognising a discrepancy, need or want, consumers seek ways to best satisfy them. Information search is a way for consumers to reduce this uncertainty, in order to make informed judgements. This process can be influenced by the type and nature of the need that was identified, and “can occur internally, externally, or both” (Lamb *et al.*, 2008: 69). Internal searches draw from information stored in memory and from recalling previous experiences, while external searches seek information from their environment. Major sources of information are divided into four key groups: personal sources such as family, commercial sources such as marketing communications, public sources such as peer-ratings, and



experiential sources such as examining the product (Kotler and Keller, 2009; Papatla and Krishnamurthi, 1992; Roa and Monroe, 1988).

Understanding the knowledge with which consumers enter the decision-purchase environment is crucial in assessing the possible effects which extrinsic cues such as price, and more intrinsic cues such as brand, have on consumer decision-making. Ofir *et al.* (2008) reiterate the moderating role of knowledge on consumers' ability to interpret and use intrinsic product cues in the decision-buying process. As consumer knowledge of a specific product category increases through information search, the tendency for quality-based judgements to be based on extrinsic cues such as price, is reduced (Rao and Monroe, 1988). Furthermore, increased consumer knowledge reduces the uncertainty associated with a judgement, reducing the need for inferences to be made to supplement limited information.

Information searches help consumers to establish cognitive sets of alternatives (Roberts and Nedungadi, 1995). This process of consideration is intrinsic to the evaluation of alternatives as it determines which products and brands individuals will choose from. Both internal (recalled experiences stored in memory) and external (sought from the environment) sources of information, help consumers to build cognitive sets of possible brand alternatives (Papatla and Krishnamurthi, 1992). These sets become successively smaller, as consumers look to satisfy specific needs. The "total set" reflects all the brands available; the "awareness set" shows those of which the consumer is aware; the "consideration set" contains those that meet the initial buying criteria (Kotler and Keller, 2009). The creation of a consideration set can also be attributed to consumers' decision heuristics (refer 2.3.2), as a means of simplifying routine decision-making in the evaluation of alternatives (Nedungadi, 1990). Those alternatives in the final consideration set are then evaluated in the next step of the decision-making process.

### **2.4.3. Evaluation of alternatives**

Evaluating the alternatives identified through the information search is the third step of the decision-making process. No single process for the evaluation of alternatives can be applied to all consumers, as the attributes that individual consumers are looking for and on which they place value differ. This value-consideration of alternatives in itself is also influenced by cognitive and lifestyle factors including those discussed of culture and income, as well as beliefs and attitudes (Kotler and Keller, 2009). In this stage of the decision-making process, consumers can use extrinsic and intrinsic cues, past experience and social norms to evaluate the attributes of the alternatives, making trade-offs between perceived benefits and value, and costs and sacrifice, as discussed as follows.

### **2.4.4. Purchase decision**

In the evaluation stage, the consumer forms preferences among the brands that make up the choice set (Kotler and Keller, 2009). These preferences guide the purchase decision, with greater preference most likely increasing the probability of purchase and vice versa. Trade-offs between different attributes occurring in the evaluation of alternatives are then enacted in the purchase decision.

The consumer's purchase decision is further explained by the theory concerning compensatory and non-compensatory models of consumer choice (Malhotra, 2007). The compensatory model suggests that consumers make dynamic evaluations and comparisons of the different attributes of different brand offerings. In this way, positive attributes may compensate for negative ones of the brand, leading to the overall appeal or preference of the alternative to be calculated as the difference between positive and negative features. This theory is supported by transaction-utility theory (Burton *et al.*, 1998) and by the expectancy-value model (Kotler and Keller, 2009), which explain consumer decision behaviour as a multivariable and dynamic process.

However, in reality, consumers often do not expend the time, cognitive energy and resources necessary to make such complex evaluations. The non-compensatory model accounts for a more simplistic and one-dimensional consumer decision-making processes where positive and negative attributes do not necessarily net out. Non-compensatory decisions focus on attributes independently, comparing them in isolation, often employing decision heuristics such as the conjunctive heuristic and lexicographic heuristic (refer 2.3.1) to assist and expedite decision-making.

Enacting purchase intention to a purchase decision can also be affected by the perceived attitudes of others, as well as by unanticipated situational factors such as the purchase context. Perceived risks (namely functional, physical, financial, social, psychological and time risks) as discussed in the theory of loss aversion (refer 2.3.5), are also a strong determinant of consumers' purchase decisions and must be considered and evaluated by marketing managers when building and communicating value propositions (Kotler and Keller, 2009).

#### **2.4.5. Post-purchase behaviour**

Post-purchase behaviour refers to the consumers' experience with the product or service after the purchase decision has been made. Broadly defined, it includes consumers' level of post-purchase satisfaction (function of consumer expectations and the product's perceived performance) as well as post-purchase actions (Kotler and Keller, 2009). Directly affected by post-purchase satisfaction, post-purchase actions can include using, disposing of or returning the product. Consumers recommending or re-purchasing the product or service are some actions which may occur after the purchase. Although beyond the scope of the current study, this element of consumer decision-making is important for managers to consider as it will affect future purchase decisions by influencing the consumer decision-making process.

## 2.5. CONCLUSION

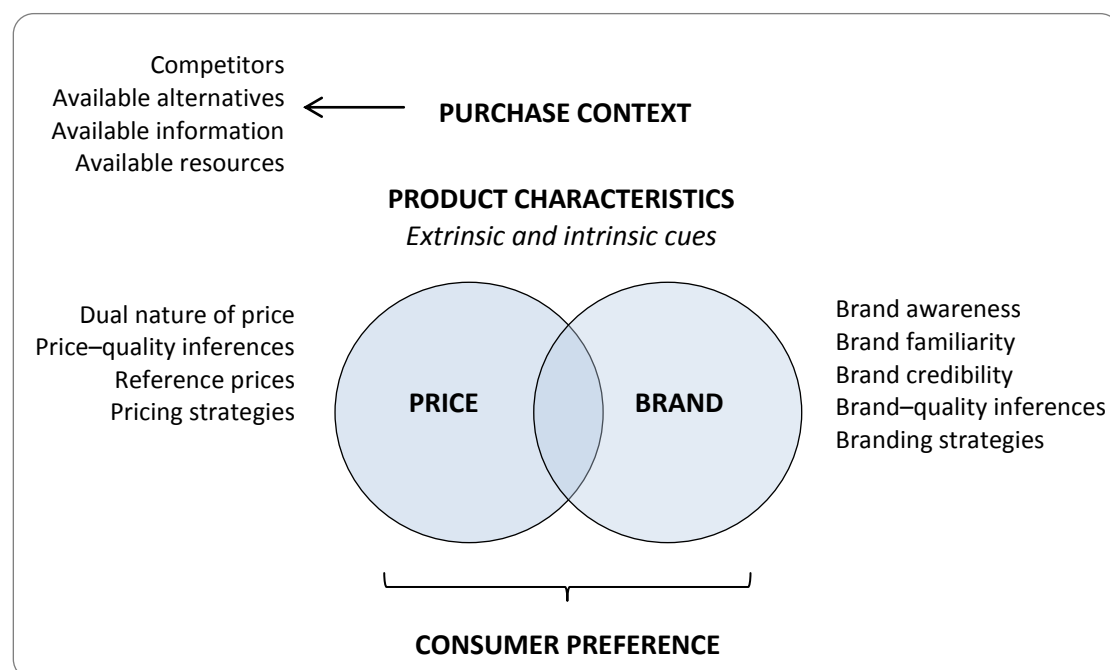
Understanding how consumers evaluate alternatives and make decisions is central to firms when creating effective value propositions. As discussed in Chapter 1, the purpose of this study was to explore the choice behaviour of low-income consumers in measuring the importance and effect of prices and brands on their product preference. Contributing to the secondary research while addressing the research objectives, this chapter explored the key factors influencing consumer behaviour, while also discussing various theories underpinning consumer decision-making and the practical steps consumers employ in this process.

The findings of the review of literature saw that, although economic theory supports the idea of rational consumers, marketing research has shown that individuals do not always process information in a deliberate, systematic manner. Contrary to the idea of the “rational consumer”, consumers often construct their preferences at the time of their decisions rather than relying on predetermined and stable preferences, which suggests that product preference and choice are dynamic and context-specific. Facing different choice environments and attempting to overcome this uncertainty, consumers employ various decision-making strategies to collect and interpret information through cues (both extrinsic and intrinsic), in order to best satisfy their needs. This chapter acknowledges the various consumer-related factors (Figure 2.1) which can influence consumer decision-making, while the possible influence of price and brand on these decisions is discussed in Chapter 3.

## CHAPTER 3 | PRICE AND BRAND

### 3.1. INTRODUCTION

*Price* and *brand* are identified as extrinsic and intrinsic cues respectively that may possibly be used by individuals in the decision-making process (Frutcher, 2009; Shapiro, 1973; Jacoby *et al.*, 1971; Stafford and Enis, 1969). Following Chapter 2, where the consumer factors possibly influencing the decision-making process were discussed, this chapter draws on the extant literature surrounding the effect of price and brand on consumer decision-making, as well as providing an integrated perspective on these intrinsic and extrinsic marketing cues. As illustrated in Figure 3.1, the role of price in the consumer decision-making process is discussed in light of the dual nature of price, price–quality inferences, reference prices and pricing strategies. Similarly, the role of brand thereon is discussed in terms of brand awareness, brand familiarity, brand credibility, brand–quality inferences and branding strategies. The findings discussed in this chapter guided the research method in Chapter 5 and were drawn on in the extrapolation of conclusions and recommendations in Chapter 7.



**Figure 3.1: The role of price and brand**

### 3.2. THE ROLE OF PRICE AND BRAND ON DECISION-MAKING

As discussed by Sweeney and Soutar (2001), drawing from the work of Levy (1999), retail consumers are largely value-driven. Firms operating in the retail environment should therefore understand how consumers' perceptions of value are formulated in order to build appropriate and effective value propositions. *Perceived value* can be regarded as a "consumer's overall assessment of the utility of a product (or service) based on the perceptions of what is received and what is given" (Zeithaml, 1988:14), and is regarded as an important element in the building of a strong brand (Baek, Kim and Yu, 2010). Elaborating on this definition, perceived value can be understood as value-for-money, made up of the components of quality and price (Sweeney and Soutar, 2001; Grewal, Krishnan, Baker and Borin, 1998; Monroe, 1990). However, different consumers have different perceptions of quality and price, making the building of effective and targeted value propositions a difficult and dynamic task for marketing managers. The current study was undertaken in order to contribute to the understanding of the role of price and brand in consumers' perception of value, and the influence this has on product preference. In this way, price and brand were discussed as possible influencers on both components of consumers' perceived price and quality.

Tucker's 1964 research attempted to isolate the effects of brands on consumer quality-judgements and choice behaviour, finding that consumers did attach certain value to different brands and chose accordingly. Similarly, McConnell (1968) found that without other cues, consumers used price as an indicator of product quality, with higher priced products being perceived as greater quality and thus positively correlated with consumers' intention to purchase. Together, the results of both Tucker's 1964 research and McConnell's 1968 research support the notion that consumers can be influenced by product cues supplied by the marketer. However, the research also highlights a gap in understanding of the interaction effects of both brand and price (and their associations), on consumers' product preference as

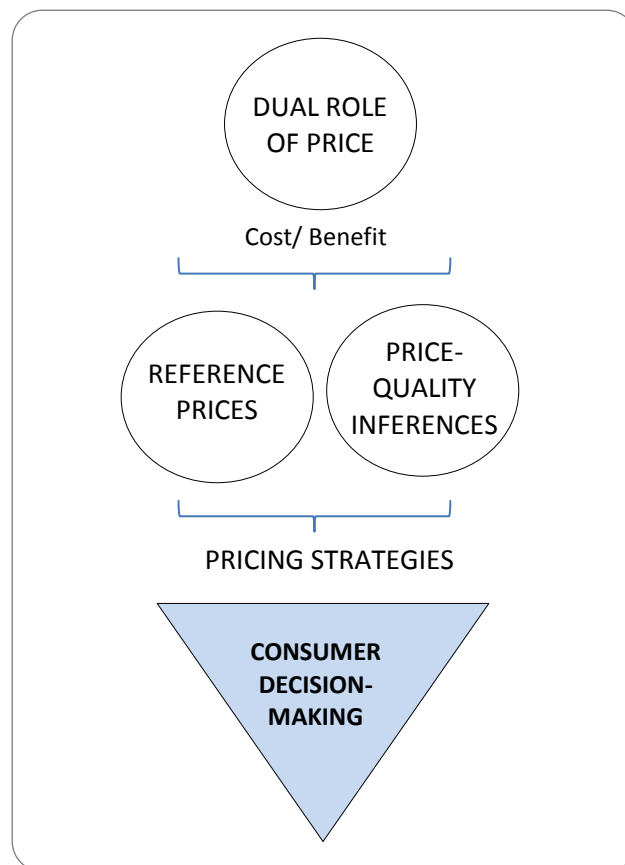
outlined in Chapter 1. Building on the review of literature in Chapter 2, Figure 3.2 illustrates different elements of brand and price, and their possible influence on the consumer decision-making process, providing an outline for the sections that follow.

### **3.2.1. The role of price**

Ofir, Raghurir, Brosh, Monroe and Heiman (2008) describe price positioning as the basic element in marketing and retail strategy. Price has traditionally been considered a major determinant of consumer choice, constituting 40 per cent of the average consumers' information search (Beneke, 2010), while being almost universally available in all purchase situations (Machado, 2013; Lichtenstein, Ridgway and Netemeyer, 1993; Etgar and Malhotra, 1981). Comprised of multiple components, price is traditionally seen as part of the marketing mix model (4Ps), and is the only source of revenue for the seller or company (Verma and Gupta, 2004).

Drawing again from classical economic theory, price can be seen as an indicator of the economic cost of making a purchase, where a higher price increases perceptions of monetary sacrifice resulting in a negative relationship between price level and purchase probability (Begg, Fischer and Dornbusch, 2003; Mas-Colell, Whinston and Green, 1995). At the same time, research in the field of marketing suggests that consumers may also rely on price information to infer product quality – thus higher price can be positively correlated with purchase probability (Burton *et al.*, 1998; McConnell, 1964; Monroe, 1976). This paradoxical relationship illustrates the “inherent ambiguity” of price which, according to Borneman and Homburg (2011: 409) and supporting Lichtenstien *et al.* (1993), has led to the substantial interest in price from both a managerial and an academic perspective.

The review of literature, illustrated in Figure 3.2, describes the multifaceted nature of the price construct, and how this dynamism affects consumers' perceptions of quality of certain brands, perceptions of affordability in terms of reference and actual pricing. From a management perspective, the role and effectiveness of pricing strategies are also considered.



**Figure 3.2: The role of price**

#### **2.7.1.1. The dual nature of price**

Price is recognised as a multidimensional construct that is composed of more than the actual retail price (Winer, 1986; Kalwani, Yim, Rinne and Sugita, 1990; Rao and Monroe, 1988). Consumers process dynamic price information in different ways, producing varying perceptions and understandings of price (Machado, 2013). The research on price therefore distinguishes between various forms of price, including the *retail price* that consumers see in store (Kalwani *et al.*, 1990), the *reference price* established in the consumers' mind from past experience through memory (Monroe, 1976) and the *perceived price* consumers expect to see in light of past experience and information stored in memory (Monroe, 1973). Each of these different facets of price has the potential to influence the other, and consumers' perceptions of quality (Winer, 1986).



Bornemann and Homburg (2011) approach price as a dual construct representing both a cost and benefit to the consumer. Corroborating extant literature, they argue that when evaluating a product, consumers may interpret price information as either an indicator of monetary sacrifice (the negative role of price) or as an indicator of quality (the positive role of price) (Frutcher, 2009; Rao and Monroe, 1988; Leavitt, 1954). Keller's 1993 model of brand knowledge (see 3.2.2.1) identifies prices as a non-product-related attribute that is also said to affect brand image and to play a significant role in determining value for money of product alternatives (Grace and O'Cass, 2002; Sweeney and Soutar, 2001).

Lichtenstein, Rideway and Netemeyer's 1993 research produced seven price-related constructs regarding consumers' formulation of positive and negative perceptions of price. *Value consciousness* – reflecting consumers' concern for price paid relative to quality received in a purchase transaction (Bao and Mandrik, 2004; Lichtenstein *et al.*, 1993), *price consciousness* – a buyer's unwillingness to pay a higher price for a product, or the exclusive focus on price (Sinha and Batra, 1999; Lichtenstein, Bloch and Black, 1988), and *coupon proneness*, *sale proneness* and *price mavenism* – the propensity for consumers to be informed of marketplace prices, were found to be consistent with the negative role of price perceptions. *Price-quality schema* and *prestige sensitivity* on the other hand, were found to be consistent with the positive role of price perceptions. This extensive research, although beyond the scope of the current study, empirically illustrates the dynamic role of price, both as a positive and negative driver for consumer consideration and purchase. Ultimately, price provides a benchmark against which utility gains and product quality can be compared (Frutcher, 2009). The trade-off between perceived benefit and monetary sacrifice happens when consumers evaluate alternatives in a purchase decision. This was considered in the extrapolation of conclusions in Chapter 7.

### 2.7.1.2. Price–quality inferences

As discussed by Sinha and Batra (1999: 237), “the degree to which a higher price implies higher quality, and how this diagnosticity varies across contexts, has been a topic of considerable research in marketing”. Price–quality inferences occur when consumers’ perceived quality of a product offering is related to its price. As discussed by Grewal, Monroe and Krishnan (1998: 331), and drawing from the work of Zeithaml (1988), *perceived quality* is defined as “a buyer’s estimate of a product’s cumulative excellence”.

The extant literature on early price research (Etgar and Malhotra, 1981; Gardner, 1971; McConnell, 1968; Tull *et al.*, 1964; Leavitt, 1954) is largely focused on the price–quality relationship considering situations where price was the only differential information available to respondents. Many of these studies observed a positive price-perceived quality relationship, with respondents often preferring higher-priced products when the price differences between choices were large, and when there was a prior belief that quality of available brands differed significantly, confirming the possible influence of perceived price–quality inferences on consumers’ decision-making (Monroe, 1976).

Burton *et al.* (1998) draw a link between price-perceived quality research and loss aversion theory (see 2.3.5) by suggesting that risk-averse consumers are more likely to purchase high-priced brands in a product category as a means of reducing the risk of purchasing a brand of inferior quality. Price–quality inferences can also be attributed to a specific decision heuristic that reflects a belief that one pays for what one gets. Following this premise, supply and demand will produce a natural ordering of products on a price scale, creating a strong positive relationship between price and product quality (Rao and Monroe, 1989). Consumers’ use of the price–quality heuristic (that is, the belief that price is a strong indicator of quality), can thus be confounded by non-price information about the product, such as *brand* discussed in 3.2.2 (Machado, 2013; Collins-Dodd and Lindley, 2002; Burton, Lichtenstein, Netemeyer and Garretson, 1999; Stafford and Enis, 1969). Furthermore, the research of Rao and Monroe

(1988; 1999) supported by Grewal *et al.* (1998) suggests that price is less likely to have a significant effect on buyers' perceptions of quality in the presence of other attributes and when buyers are familiar with the product or product category. While no generalised price–quality relationship has been found to exist, price–quality inferences are accepted to be context-specific, moderated by situational factors such as the consumers' past experience and product knowledge (Sinha and Batra, 2001; Peterson and Wilson, 1985).

#### **2.7.1.3. Reference pricing**

Consumers' perceptions of affordability and value are also affected by price, both actual and reference prices (Grewal *et al.*, 1998). As mentioned in Chapter 1, a *reference price* can be defined as a price (or price scale) in a consumer's memory that serves as a basis for comparing actual prices (Monroe, 1973). Established from the consumer's past experience, an individual's reference price can be influenced by the range of prices last paid, the prevailing range of prices and the perceived fairness of the price in a particular product category (Maxwell and Comer, 2010; Biswas, Wilson and Licata, 1993; Monroe, 1976). Furthermore, Kalwani *et al.* (1990) suggest that consumers also consider contextual variables (competing prices, in-store promotions) and expectations of future prices when making purchase decisions. The establishment of internal reference prices may also be influenced by consumers' ability to recall certain past prices, thereby affecting their perceptions of the current price.

Price thus becomes a dynamic factor in the consumer's decision-buying process, with the current price being assessed against an internal attitudinal frame of reference developed by the consumer from previous prices seen, or those stored in memory (Biswas, 1992; Mazumdar and Monroe, 1992; Putler, 1992). The existence of internal reference prices suggests that both unusually high and low prices may cause consumers to refrain from purchasing a product as they are considered unrealistic when compared to their internal reference point of expected prices (Monroe, 1976).

Drawing again from the theory of loss aversion developed by Tversky and Kahneman (1991), Hardie, Johnson and Fader (1993) add that changes from these reference points may be valued differently depending on whether they are perceived as gains or losses relative to some internal reference. Perceived losses are weighted more heavily than equivalent sized gains (Tversky and Kahneman, 1991). Within the context of pricing, and in light of price–quality inferences, loss aversion theory suggests that price gains of cheaper products do not necessarily outweigh the possibility of perceived loss of quality in the mind of the consumer. This is a possible likelihood in the context of the current study, and is considered in Chapter 7.

#### **2.7.1.4. Pricing strategies**

Pricing strategies are a key component of the long-term profitability of the firm, providing a flexible and adaptable tool for the firm to suit different market climates and address environmental changes (Beneke, 2010). Promotional pricing and price penetration strategies that use discounted or lower prices to entice consumers, induce brand switchers, create product trials and generate demand, are particularly prevalent in the FMCG retail category (Machado, 2013; Hamlin *et al.*, 2012; Huang and Sarigllu, 2011; Grewal *et al.*, 1998).

Although substantial price reductions appear to be effective mechanisms to increase consumer demand and generate sales particularly in the retail sector, Motes, Castleberry and Motes (1984), supported by Myers (2003) and Baltas (1997), warn marketers against the overuse of short-term price promotions. Promotional sales can often cannibalise future sales, thereby reducing overall sales and profit; they can negatively influence consumers' expectations of the price to pay and can make them more price–sensitive, which can reduce their perceived value of a brand and its profitability. Therefore, although supported by classical economic theory, the one-dimensional inverse relationship between price and demand is not always seen in practice.

When developing pricing strategies, management should consider the possible implications of setting their brand price higher than, equal too, or lower than competing substituting products and the influence of price on consumer perceptions and brand choice behaviour (McConnell, 1968). Particularly relevant for new products that do not have existing reputations, price becomes a significant indicator of expected quality (McConnell, 1968; Tull *et al.* 1964).

From the consumer perspective, established by Dickson and Sawyer's 1986 research, and discussed by Mazumdar and Monroe (1992), individuals are seen to attend to and process price information in order to compare prices across stores, and to compare prices of different brands within a store to enable purchase decisions. In-store price comparisons and purchase decisions are explored in this study, assessing the importance of price and brands on low-income consumers' product preference.

Consumers base purchase decisions on how they perceive prices and what they consider the current actual price to be, particularly in view of affordability (Kotler and Keller, 2009). *Price-quality inferences* (when consumers use price as an indicator of quality), *reference prices*, (such as recalled previous prices) as well as the range of prices they encounter, are also influential in consumers' decision-making processes and their choice of product (Monroe, 1976). Consumer behaviour (see Chapter 2), as well as the various elements of the price construct (Figure 3.2) are also influenced by brand-related concepts—to be discussed in the following section. As outlined in the Chapter 1, the possible independent and interdependent effects of prices and brands on consumer preference and choice, need to be accounted for in order to assess the importance and examine the effect of price and brands on consumer choice, specifically that of low-income consumers.

### **3.2.2. The role of brands**

Brands play an important role in consumers' perception and choice of a product (Aaker, 1991). A brand can be defined as a distinguishing name, term, sign, symbol, or design or combination of these which is intended to identify the goods or services of one seller (or a

group of sellers), and differentiate them from those of competitors (Bian and Moutinho, 2011; Kotler and Keller, 2009; Keller, 2003; Aaker, 1991; Farquar, 1989). Aaker (1991) supported by Erdem and Swait (2007; 2004) emphasise the importance that brands have in the consumer decision-making process and its possible influence on consumer brand preferences and choice.

Different brand roles can be operationalised through various mechanisms including psychological (through associative network memory), sociological (through brand communities and reference groups) and economic processes (brands involvement in the risk analysis of consumer choice) (Erdem and Swait, 2007; Hoeffler and Keller, 2003).

The *associative function* of brands helps consumers recall important product information and recognise potential usage situations (Janiszewski and Osselaer, 2000). A narrow definition of brand confines it to being an identifier of a product (merely a part of the product), while a more holistic approach includes the tangible and intangible attributes that provide satisfaction to consumers (Nguyen, Barrett and Miller, 2010). The latter definition suggests that the product and brand have separate although related values and purposes: the product provides consumers with functional benefits, while the brand can provide consumers with symbolic and emotional benefits and satisfaction (Bhat and Reddy, 1998).

From the perspective of the firm, effective brands have been correlated with increasing market share, increasing brand trust, lending credibility to new product developments, giving a clear, valued and sustained point of difference as well as commanding a premium, and reducing price-sensitivity of consumers – all of which suggest clear advantages for the firm (Jeevananda, 2011; Beneke, 2010; Kay, 2006; Aaker, 1996). Increasing new product development costs, the high rate of new product failures as well as declining economic growth and increasingly competitive markets have also elevated brands and branding in business strategies because of their ability to be extended across new products, lowering development and launch costs (Myers, 2003; Calderón, Cervera and Mollá, 1997; Cobb-

Walgren, Ruble and Donthu, 1995). Further advantages for firms that invest in building effective brands include building a strong relationship between brand and consumer, encouraging repeat purchases and customer retention, differentiating from competitors, disincentivising consumers switching to different brands even when provided with a better offer, and ultimately contributing to long-term profitability (Joubert and Poalses, 2012; Beneke, 2010; Kay, 2006; Myers, 2003; Bhat and Reddy, 1998).

From the perspective of the consumer, brands provide helpful heuristics (refer 2.3.2) in simplifying decision-making and saving time in the information search and evaluation of alternative stages of the decision-making process (Tariq *et al.*, 2013; Hamlin *et al.*, 2012; Macdonald and Sharp, 2000; Hoyer and Brown, 1990; Aaker, 1991; Narayana and Markin, 1975). With rising competition fuelled by globalisation, the range of products and services available to consumers is growing at an exponential rate. This overload of information and immense range of alternatives leaves consumers overwhelmed when even purchasing FMCG, causing consumers to rely more on strong brands with clear and positive associations to help them make choices (Joubert and Poalses, 2012).

“Branding” is an umbrella term that encompasses many concepts affecting consumer decision-making, as illustrated in Figure 3.3, including *brand awareness* (Hoyer and Brown, 1990; Macdonald and Sharp, 2000), *brand familiarity* (Biswas, 1992), *brand credibility* (Erdem and Swait, 2004), and *brand-quality inferences* (Myers, 2003). These four concepts, central to the problem statement of the current study (Chapter 1), are discussed further in light of their possible effects on the consumer decision-buying process. Firms’ *branding strategies*, including the use of national versus private label brands, are also discussed.



**Figure 3.3: The role of brand**

#### 3.2.2.1. Brand awareness

Brand awareness can be defined as a “rudimentary level of brand knowledge involving, at the least, recognition of the brand name”, and refers to the ability of consumers to recall a brand (Huang and Sarigollu, 2011:78; Hoyer and Brown, 1990). The brand name provides the memory nodes in the consumer’s mind, which consumers can then link to related brand knowledge and experience (Kay, 2006; Low and Lamb, 2000; Keller, 1993; Aaker, 1991). In this way, brand awareness precedes building brand equity (the financial product of consumers’ positive evaluation of a brand) (Farquhar, 1989), providing the first building block of the brand’s image in the consumers’ mind (Alimen and Cerit, 2010; Gardner and Levy, 1955).

Brand awareness can also be seen to represent the lowest end of the continuum of *brand knowledge* (see Figure 3.3), built through consumers’ brand associations and contributing to brand image (Faircloth, Capella and Alford, 2001). Keller (1993) further classifies brand awareness into *brand recognition* and *brand recall*. Brand recognition refers to the ability of the consumer to confirm prior exposure to a brand given a cue, while brand recall occurs



when consumers are able to retrieve a brand when a product category is given (Alimen and Cerit, 2010; Low and Lamb, 2000).

Although it is the lowest form of brand knowledge, brand awareness is recognised as important in low-involvement situations (see 2.3.3) where consumers may invest less time in the search for information and evaluation of alternatives (Huang and Sarigollu, 2011; MacDonald and Sharp, 2000). In the context of such low-involvement packaged goods, brands that consumers know are more likely to be included in their consideration set, thereby increasing their chances of being purchased and improving overall brand market performance (Huang and Sarigollu, 2011).

Macdonald and Sharp (2000: 5), replicating the research of Hoyer and Brown (1990), support the conclusion that “brand awareness is a dominant choice tactic” or heuristic in individuals’ decision-buying process, particularly when consumers face a new decision task. The concept of the habitual consumer – suggesting that consumers (particularly in low-involvement repeat purchases such as in the FMCG category) are passive recipients of product information and spend minimal time and cognitive effort choosing brands – emphasises the potential influence that brand familiarity can play on consumers’ decision-making process. Furthermore, when brand awareness differentials exist across available alternatives, individuals have been found to show significant preference for the “high awareness” or familiar brands, despite quality and price differences (Hoyer and Brown, 1990). In other words, when faced with alternatives of differential awareness, consumers were likely to use brand awareness over price as a choice heuristic.

Although brand awareness has been suggested as the antecedent of brand profitability and sales (Baldauf, Cravens and Binder, 2003) and, in some research, positively correlated with market performance (Kim and Kim, 2005; Kim and Kum, 2004; Kim, Kim and An, 2003), the specific effect of brand awareness on consumers’ product preference is still under debate (Huang and Sarigollu, 2011).

### **3.2.2.2. Brand familiarity**

Brand familiarity (see Figure 3.3) is a more developed level of brand knowledge and can be defined as the individual's accumulation of brand-related experiences (Biswas, 1992; Alba and Hutchinson, 1987; Rao and Monroe, 1988). Brand familiarity can also influence individuals' perceptions of price, seen in Rao and Monroe's 1988 research which found that product familiarity is likely to mediate consumers' price-quality inferences. Biswas's 1992 research corroborates this, suggesting that consumers familiar with a brand will be less likely to be impacted upon by exaggerated reference prices than those unfamiliar with the brand. Brand familiarity may also influence consumers' internal reference price, where more familiar consumers will likely build more realistic internal reference prices, leaving them less susceptible to unusually high and low offerings, and to deceptive advertising (Biswas, 1992).

Brand familiarity is further associated with the concepts of trust and risk. Consumers may attach less risk to familiar brands, owing to positive or satisfactory experiences, than with unfamiliar brands, supporting loss aversion theory (see 2.3.5) (Tversky and Kahneman, 1991). The propensity of brand familiarity to positively influence consumer choice can also be related to the availability decision heuristic (see 2.3.2) that guides consumers to put greater weight on information that is most readily recalled, or on alternatives that are familiar, over those that are not. Furthermore, Hoyer and Brown (1990: 145) found that "the presence of a known brand in a choice set may have some negative effects on the consumers' ability to detect the differences in product quality across brands." In the context of the FMCG category, Monroe (1976) comments that brand name is possibly more important than price, again reflecting the possible influences of brand familiarity.

### 3.2.2.3. Brand credibility

Brand credibility – introduced by Erdem and Swait (1994) in their examination of consumer-based brand equity – is defined as the perceived believability of whether a brand has the ability and willingness to continuously deliver what has been promised (Baek *et al.*, 2010). In a market characterised by asymmetric information, economic agents such as firms and consumers use signals or manipulable attributes or activities to communicate product characteristics and differentiate from competitors (Erdem and Swait, 2007). However, for such signals and cues to be successful, consumers must perceive them as credible. Initial research showed that brand credibility positively influences consumers' perceived quality, and reduces information costs, perceived risks, increasing the likelihood of sustained brand purchase (Baek *et al.*, 2010; Erdem and Swait, 2007). Building credibility and associated perceived value is imperative for firms wishing to build a resilient brand. Brand credibility communicates trust and consistent quality to consumers, encouraging repeat patronage, referrals and minimising switching (Baek *et al.*, 2010). In turn, consumers associate perceived credibility with assured quality and use this information to reduce uncertainty and expedite decision-making.

### 3.2.2.4. Brand–quality inferences

Brand names can function as both associative cues for information retrieval, and as predictive cues of product performance (Grace and O'Cass, 2002; Janiszewski and Van Osselaer, 2000). The view that brands can act as predictive cues for consumers introduces the concept of *brand–quality* inferences. Similar to *price–quality* inferences (see 3.2.1.2) consumers can make brand–quality inferences by associating higher quality and value with certain brands, over others (Keller, 2009; Grace and O'Cass, 2002). In this way, consumers attach certain economic and symbolic value to products, inferred from associations and experience with the brand, increasing the perceived quality and thus the overall value of the product. Brand–

quality associations can be used by firms to gain competitive advantage in the market and leverage through brand extensions in order to generate demand for new products.

Brands as a signal for product quality may also indirectly lower consumers' perceived risk associated with a particular product, positively influencing consumers' intention to purchase (Janiszewski and Osselaer, 2000; Tversky and Kahneman, 1991). Furthermore, drawing on the research of Roa and Monroe (1989) and Monroe and Krishnan (1985), Bristow *et al.* (2002), suggest that the usefulness of price as a signal for quality, may be enhanced with the presence of a brand. Although this relationship between price and brand and their combined effect on consumers' perceived quality has been challenged (Render and O'Connor, 1976), research suggests that brands (with or without price) may trigger perceived quality associations with products, influencing individuals' decision-making process. Beyond quality inferences associated with products, brands can also represent a promise or bond between the firm and consumers, upon which a relationship of trust and loyalty can be built (Grace and O'Cass, 2000; Keller, 1993).

Tariq *et al.* (2013) found that *product quality*, as well as brand image, product knowledge, product involvement, product attributes and brand loyalty have significant positive relationships with purchase intentions, emphasising the importance of perceived quality for sales. In the context of the FMCG category, Jeevananda (2011) argues that it is consumers' perceived quality of products that is the major determinant of brand choice, with customers choosing those branded products that are perceived to provide consistently satisfactory quality.

Collins-Dodd and Lindley (2002), following from the research of Dawar and Parker (1994), and other cue utilisation literature, state that brand name is recurrently an important cue for product quality and thus a key determinant of consumer preference and brand choice. However, brand name as signal for quality can be culture-specific, making focused research on different cultures and socio-economic segments necessary to build a reliable body of

knowledge (Dawar and Parker, 1994). The review of literature surrounding brand–quality inferences suggests a complex relationship and trade-off between price and affordability and brand and quality (see Figure 3.3), one which marketers need to approach carefully.

### **3.2.2.5. Branding strategies**

The potential influence of brands has increasingly led to managers developing complex branding strategies to attract, entice, retain and satisfy consumers (Janiszewski and Osselaer, 2000). Co-branding, joint-branding and brand extensions using both national and private brands are examples of different ways in which marketers can build distinctive brand images, differentiating from rising competition, and influencing consumers' value and quality perceptions (Levy and Weitz, 2009). The use of national and private brands is particularly prevalent in the FMCG category.

Brands can be characterised as being private (brand extension of the retailer brand, owned by the retailer with independent brand, or an independent brand) or national (distributor/manufacturers' brand) (Jin and Suh, 2005; Sethuraman and Cole, 1999; Baltas, 1997). Burton *et al.* (1998) suggest national brands as a group are generally perceived to have less variability in product quality when compared to private label brands, reducing consumers' perceived risk in the decision-making process. Individuals' degree of risk aversion may influence their receptiveness to private and national brands, while those individuals who are more risk-averse are less receptive to private label brands, and vice versa (Baltas, 1997).

Private label brands, including store brands, play an increasingly important role in the food retail sector, and retail grocery strategy (Olsen *et al.*, 2011; Richardson *et al.*, 1992). In the South African context, the private label market share was estimated at 11 per cent in 2012, a 4 per cent increase from 2007 (Beneke, 2010). Most private label brands are designed and positioned as low-cost generics, and used as retailers to offer substitute private brands at a lower price relative to their respective national brand competitor. This is an effective strategy in targeting price-sensitive consumers, who are less likely to form preconceived positive

price–quality correlations, and thus less risk averse to a cheaper product (Sethuraman and Cole, 1999; Baltas, 1997). However, following the rise in demand for private label brands, marketers are also utilising premium positioning strategies (Olsen *et al.*, 2011).

Building upon strong store brand equity, private label brands also allow retailers to create brand extensions by transferring positive associations that consumers attach to the store brand onto individual products, reducing consumers' perceived risk and increasing probability of their purchase (Collins-Dodd and Lindley, 2003; Richardson *et al.*, 1996). Brand extensions, which are the most frequently used branding strategies (Volkner and Sattler, 2006), allow for effective transfers to occur from the parent brand to the extension product category (Liu, Hu and Grimm, 2010; Aaker and Keller, 1990). Effective private label strategies that differentiate among competitors can thus contribute to the lifetime value retailers derive from their customers through possible brand and store loyalty (Levy and Weitz, 2009).

Richardson *et al.* (1996) provides an overview of the literature concerning private label brands, particularly store brands that focused predominantly on the private brand proneness of different consumers. The body of research suggests that different consumer profiles are more or less likely to be store-brand or national-brand prone, depending on dynamic perceptions of value, quality and associated risk. Again, consumers' evaluation of different brands is affected by various factors including education (Cunningham, Hardy and Imperia, 1982; Burger and Schott, 1972), income (Frank and Boyd, 1965), and personality (Myers, 1967).

### **3.3. CONCLUSION**

Price and brand are influential tools at the disposal of the marketer, to build value propositions that will satisfy consumers' needs. The strategic importance of these concepts is emphasised by their dynamic nature and various possible influences on consumer decision-making and ultimately brand-choice behaviour. The gap in understanding the interdependent

influence of price and brand on consumers' decision-making was addressed in the primary research of the current study.

Literature reveals a complex relationship between the multi-dimensional concepts of price, brand familiarity, previous experience and product choice, which is further affected by extraneous variables such as budget constraints and access to information – these being most prevalent in low-income consumer markets. These factors were important considerations in developing a measurable and reliable research design to assess the importance and examine the effect of price and brands on low-income consumers' choice of different products. The BOP (the focus target market of the current study) is discussed in Chapter 4.

## CHAPTER 4 | THE BOTTOM OF PYRAMID PROPOSITION

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### 4.1. INTRODUCTION

As discussed in Chapter 1, the purpose of this study is to contribute to the existing literature surrounding the possible influence of prices and brands on low-income consumers' decision-making process, recognising these concepts as valuable extrinsic and intrinsic cues in creating a value proposition. In terms of the income pyramid, where the relatively few high-income consumers are found at the apex or top of the pyramid, the great majority of low-income consumers can be classified as the fourth tier and bottom of pyramid (BOP). The focus on the BOP was driven by the lack of attention given to this large and under-served market segment, the viability for firms to successfully enter this market segment and the immense sustained profit potential it may hold.

The BOP is thus identified as a segment that is globally measurable at an estimated four billion under-served people (Wood, Pitta and Franzak, 2008: 419; Guesalaga and Marshall, 2008), accessible through innovation in infrastructure and distribution, differentiable from higher income segments with unique needs and expectations, and large enough (80% of the world's population as of the 21st century) to warrant private firms' attention and involvement (Choi, Kim and Kim, 2008: 304). Greater understanding of low-income consumer behaviour is necessary for marketers to build effective value propositions that can address the needs of BOP market segment, resulting in sustained profits (D'Andrea, Ring, Aleman and Stengel, 2006; Prahalad and Hart, 2002).

Prahalad (2005), supported by his colleagues, as discussed by Wood *et al.* (2008: 419) believed that the poor would "embrace those firms that served them best and, fuelled by subsequent profits, such firms would sustain the process and gradually improve the BOPs standard of living". The importance and relevance of the BOP provides a starting point for this chapter, giving clarity to its global socio-economic significance, followed by a discussion



on the BOP as defined as a measureable, reachable and viable market segment. A profile of the low-income consumer is discussed through a review of literature, contextualising the discussions on consumer behaviour and decision-making, and the effect of price and brand thereof, as discussed in Chapters 2 and 3 respectively.

## **4.2. THE IMPORTANCE OF THE BOP**

The BOP proposition was popularised by Prahalad (2002) and discusses the role of the private profit-orientated business sector in socio-economic upliftment, and poverty eradication. Developed further by Hammond (2002) and Lieberthal (2005), a BOP marketing framework was established to facilitate a firm's expansion in the low-income markets (Bang and Joshi, 2008).

Originating from the failure of non-profit and non-governmental organisations (NGOs) in generating sustained economic and social growth in these areas, the BOP proposition's purpose is to uplift the estimated four to five billion under-served and impoverished people across the globe (Wood, Pitta and Franzak, 2008; Moore, 2006). An example of this failure is seen in sub-Saharan Africa where over 3000 NGOs devoting hundreds of millions of US dollars to alleviate suffering and poverty, saw a relatively small (21%) decrease in per-capita income in real terms decrease over a period of 10 years (1979–1989) (Moore, 2006; Manji and O-Coill, 2005). Further failures by governments, particularly in developing economies, also exposed the needs of the poor and led to a new model that saw multinational companies (MNCs) adapting strategies and innovating products to meet the needs and desires of this market segment, with the goal to create consumption capacity among the poor (Bang and Joshi, 2008).

The BOP proposition provides a framework for firms considering or currently operating in the low-income market segment, to explore ways to reconcile their profit objectives, and the needs of the underserved low-income market segment. The BOP offers a largely untapped arena where both private interests of profit and growth, as well as public interests of socio-

economic upliftment and empowerment can be realised. With an estimated aggregate gross domestic product of over USD 12.5 trillion (Moore, 2006), the four billion poorest people who fall into the BOP do represent a significant market segment, and are potential new consumer markets for goods and services (Sridharan and Viswanathan, 2008).

Fuelled by globalisation, international competition is increasing at both a cost and an innovation level. Many companies are facing diminishing market share for their products and services, particularly the retail and fast-moving consumer good (FMCG) industries (Wood *et al.*, 2008). Following traditional marketing theories, these companies must either fight for greater share in saturated markets or expand into new, under-served ones. As argued by Bang and Joshi (2008), market expansion is a very important strategic option in developing economies. Identifying the antecedents to market expansions as unfulfilled needs and wants (East and Vanhelue, 2013), purchasing ability (Etzel, Walker and Stanton, 2004) and access (Rosenbaum, 2000), Bang and Joshi (2008) discuss both the opportunities and challenges facing firms considering entering the BOP market segment. However, with the immense profit potential of this market segment, the BOP should be seen as the critical “last frontier” for organisations to establish sustainable growth (Chickweche and Fletcher, 2010).

Using the World Resources Institute and International Finance Corporation, Subrahmanyam and Gomez-Arias (2008) project global BOP consumption to be USD 5 trillion, with primary expenditure going to food (58%), energy (9%) and housing (7%). Transport is another expense for individuals falling within the low-income market segment, and it is a key consideration in calculating disposable income. Although scrutinised by Pitta *et al.* (2008), the potential spending power of the vast number of low-income consumers provides a considerable incentive for firms to pay attention to this vast yet deprived sector (Guesalagua and Marshall, 2008).

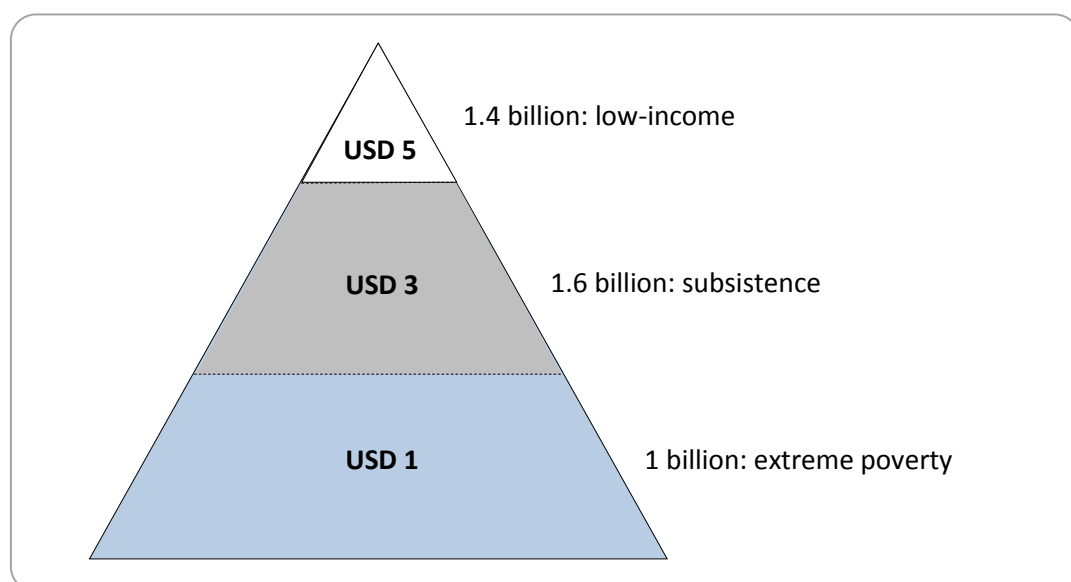
### 4.3. DEFINING THE BOP

In order for the viability of the BOP to be ascertained, a working definition of this market segment is required, outlining the potential scope and value it can hold. Chikweche and Fletcher (2010: 247) report Africa's BOP market to be worth USD 429 billion, where in South Africa, over one-third of the population can be classified as part of this market segment (Corder, Chipp and Kapelianis, 2012: 3). Further research has estimated figures for market potential and purchasing power of the global BOP to be between USD 2.7 billion and USD 5 trillion per annum. Guesalaga and Marshall's (2008:414) research addressed the discrepancies in the estimated market value through the "buying power index (BPI) methodology". This concluded that in the BOP market, buying power can reach \$5,000 billion per annum with an expenditure possibility reaching \$6,000 billion per annum, with Africa having the highest BPI in the world (Guesalaga and Marshall, 2008: 414). However, discrepancies still exist in the true value of the BOP, illustrating a significant gap in research on this market segment and a key concern for firms considering serving the low-income consumer.

Karnani (2007) reported by Corder and Chipp (2012) reiterate this concern through highlighting the "inherent subsistence problem" referring to the lack of discretionary income actually held by the BOP market. After spending the majority (80%) of their income on food, clothing and fuel, there is little left over for products outside these categories. Organisations may view the lack of purchasing power of individuals in the BOP market segment as unsustainable and unprofitable, adding to their hesitancy to support the BOP proposition and engage with this largely marginalised market. Ultimately, although the BOP market segment cannot be accurately estimated owing to its lack of formal banking network and a largely subsistence living and financing environment, the consensus is that it may be a valuable and growing market segment.

Ireland's (2008) approaches the topic by segmenting the BOP geographically into urban and rural locations. His findings highlight the large differences in needs and wants between urban and rural poor as well as reiterating the influence of culture and other demographic factors on this market. This distinction poses the urban poor as a more viable market and area of focus for MNCs owing to existing infrastructure and the multicultural elements. Although dealing with a hugely fragmented and diverse market, this distinction is valuable in directing future research.

A brief overview of the general consensus of the size and characteristics of this market is given in response to the challenges of establishing the true value of the BOP. Prahalad and Hammond (2002), as reported by Corder and Chip (2012), established a cut-off income level of USD 2000 per year that equates to approximately USD 5.50 or ZAR 38.50 per day (USD 1= ZAR 7.00), identifying four billion consumers from the global market. Arguing that the BOP is “not a monolithic, homogenous whole”, Rangan, Chu and Petkosi (2011) further use multiple cut-off income levels to build a flexible model. Shown in Figure 4.1, this more sensitive model segments the BOP further into three different tiers:



**Figure 4.1: The BOP**

Source: Adapted from Corder and Chipp (2012)

- Firstly, 1 billion people who live in extreme poverty, earning less than USD 1.00 (approximately ZAR 7.00) per day.
- Secondly, 1.6 billion people who live in subsistence earning between USD 1.00 and USD 3.00 (approximately between ZAR 7.00 and ZAR 21.00) per day.
- Thirdly, 1.4 billion people who live on a low income, earning between USD 3.00 and USD 5.00 (approximately between ZAR 21.00 and ZAR 35.00) per day.

Consumer factors, such as social and cultural factors (discussed in Chapter 2) may have possible influences on individuals' behaviour, suggesting the need for targeted research on specific country, socio-economic and cultural contexts. Although some researchers (Dawar and Parker, 1994; Elinder, 1991; Fatt, 1964; Leavitt, 1983) do not see possible influence of consumer characteristics as significant – owing to prolific mass-media advertising, increasing globalisation and the subsequent convergence of certain consumer behaviour across cultural borders – others (Boddewyn, 1981; Fisher, 1984; Fournis, 1962) suggest that this cultural convergence does not exist and that differences are only increasing, thereby emphasising the need for focused culturally specific research, such as that of the current study on low-income consumers in South Africa. Marketers are encouraged to adapt marketing strategies to best fit different target market segments, such as with the BOP (Hussain and Khan, 2013).

With the recent attention given to the BOP since Prahalad's initial proposition in 2002, the purpose of the current study (discussed in Chapter 1) was to assess the importance and examine the effect of price and brands on low-income consumers' decision-making in the South African context.

#### **4.3.1. THE SOUTH AFRICAN BOP**

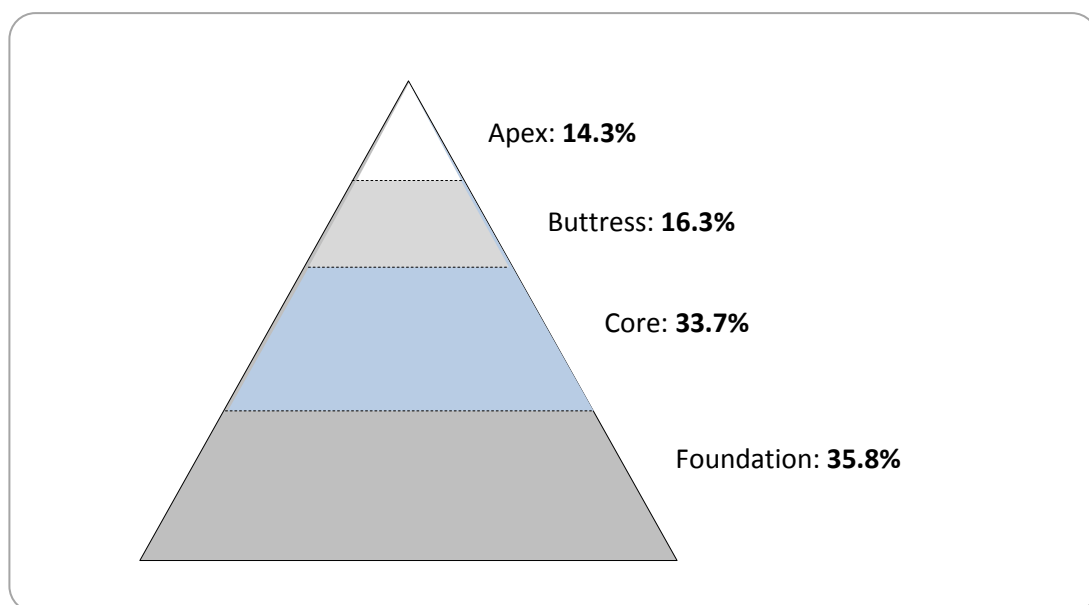
Corder and Chipp (2012) use segmentation to identify and analyse the BOP in South Africa. Using the household data from SAARF (2012), an operational definition of the low-income market segment in South Africa is provided. This contextualises the relevant literature and

builds a platform for the low-income consumers in South Africa to be identified and discussed.

Based on the Living Standards Measure (LSM), which is derived from a subset of household variables, the South African BOP is divided into four clusters. Guided by the comprehensive research of Corder and Chipp (2012), this brief analysis of the South African BOP initially highlights the existence of this market in South Africa. Secondly, it provides parameters to identify specific households and individuals as discussed in Chapter 1. Drawing from Corder and Chip's (2012) conclusions, the four clusters are labelled as follows:

- The *foundation* representing 35.8% (11194000) of South African adults and forms the base and “bottom” of the South African income pyramid;
- The *core* representing 33.7% of South African adults (10534000);
- The *buttress* representing 16.3% of South African adults (5105000);
- The *apex* representing 14.3% of South African adults (4463000).

These clusters are graphically represented in Figure 4.2. The average incomes of these different clusters per day are shown in Table 4.1.



**Figure 4.2: The South African BOP**

Source: Corder and Chipp (2012)

**Table 4.1: Income breakdown of South African BOP**

INCOME MEASURE	PYRAMID GROUP			
	FOUNDATION	CORE	BUTTRESS	APEX
Average personal income per day	ZAR 43.73	ZAR 88.09	ZAR 202.38	ZAR 371.97
	\$ 6.25	\$ 12.58	\$ 28.91	\$ 53.14
Average household income per day	ZAR 68.99	ZAR 155.47	ZAR 404.20	ZAR 785.42
	\$ 9.86	\$ 22.21	\$ 57.74	\$ 112.20

Source: Adapted from Corder and Chipp (2012: 32) | Exchange rate USD 1 = ZAR 7.00 used

Focusing on the foundation cluster, the average personal income of South African adults in the BOP is ZAR 1 312.00 (USD 187.43) per month, or comparably, ZAR 43.73 (USD 6.25) per day. Slightly higher than the discussed cut-off income level of Prahalad and Hammond (2002) of USD 5.50, and that of Rangan *et al.* (2011) at USD 5.00, the average personal income reveals a low-income market largely supported by government social income grants.

#### 4.4. THE BOP CONSUMER

Key characteristics of the BOP consumer, established from a review of the relevant literature, provide a basic profile of low-income consumers. Facing significant challenges, individuals and families in the BOP generally live in “substandard housing, with limited or no access to sanitation, potable water and health care, have low levels of literacy and earn very low incomes” or are supported by social grants (Weidner, Rosa and Viswanathan, 2010; Chikweche and Fletcher, 2010).

D’Andrea *et al.* (2006) discuss several myths surrounding emerging consumers in the BOP, highlighting common misconceptions associated with low-income consumers, and opportunities that lie behind the misconceptions. One myth claims that “low-income consumers have little money to spend”, making them unable to participate in the marketplace. However, although consumers in the BOP do have economic limitations, because of social grants and collective buying, low-income communities have relatively substantial and stable disposable income, that must be spent on necessary items (D’Andrea *et al.*, 2006: 678).

Another myth argues that “at the BOP, needs are simple and the lowest cost prevails” (D’Andrea *et al.*, 2006: 679). In response, research argues that BOP consumers are not top-of-pyramid (high-income) consumers with less money (D’Andrea *et al.*, 2010). Studies show that they have significantly different needs, buying patterns and expectations to those of high-income and affluent tiers and thus require tailored value propositions and marketing strategies (D’Andrea *et al.*, 2010; Wood *et al.*, 2008; Pitta *et al.*, 2008; Subrahmanyam and Gomez-Arias, 2007; Hamilton and Catterall, 2005).

Thus, contrary to the misconception that low-income consumers are largely “price takers”, research shows that low-income consumers often trade-off affordability of a lower price for familiarity of the brand, to minimise their perceived risk of loss (D’Andrea *et al.*, 2006; Monroe, 1976). In other words, they will switch between familiar brands depending on affordability rather than on lowest cost and are hesitant to experiment with unknown brands owing to the high risk associated with unfamiliarity.

An associated myth argues that “emerging [low-income] consumers are overwhelmingly attracted to low shelf-prices” which is again disputed by the complex and dynamic trade-offs consumers in this market segment are seen to make between different product attributes (D’Andrea *et al.*, 2006: 680). Linking back to the role of brands, the research of Pitta *et al.* (2008) also suggests that low-income consumers do care about brands because of their association with product quality (Moore, 2006). Later research by Chikweche and Fletcher (2010: 250) on branding at the BOP segment, supports both Pitta *et al.* (2008) and Monroe’s (1976) findings that low-income consumers often show a strong preference for branded goods, correlating with relatively high levels of brand recall and recognition, because these products (despite their higher price) are perceived as offering “backing, confidence and quality”. In particular, D’Andrea’s (2006) research found that the propensity for low-income consumers to favour certain brands, despite higher prices, was highest for staples (cooking oil and rice), followed by aspirational goods (soft drinks) and then self-esteem items (personal hygiene products). Brand familiarity, (see Chapter 3) thus becomes an influential and



important factor in the low-income consumer's decision-buying process. The guarantee of quality is "particularly important to individuals within the BOP market segment because the financial loss from an underperforming product is greater for people with limited incomes", refuting the importance of low shelf-prices implied, and reiterating the aversion to loss (see 2.3.5) prevalent for individuals in this market segment (Beneke, 2010; Pitta *et al.*, 2008: 399; D'Andrea *et al.*, 2004).

Brand communities were also found to be prevalent among BOP consumers where preferences and perceptions regarding certain brands were built and shared across a wide spectrum of social networks, creating a collective "memory" of past experiences, as well as network of credible information on new products, that were found to be critical in consumers' purchase decision-making (Chikweche and Fletcher, 2010). In terms of low-income consumers who face constrained shopping and resources (Wood *et al.*, 2008: 422), factors such as prior knowledge from experience, informal communications and point-of-purchase resources are most influential when interpreting and responding to price.

In terms of consumer involvement (see 2.3.3), BOP consumers also differ from largely Western-orientated, and middle-to-high-income research (Hoyer and Brown, 1990). Given their limited income and resources, BOP consumers cannot be characterised as habitual or routine consumers who commit minimal time and cognitive effort to purchasing, even in the frequently purchased FMCG category (Chickweche and Fletcher, 2000). Making the right purchase is important for the BOP market segment, emphasised by their propensity to loss and risk aversion, and subsequently affecting their perceptions of both price and brand.

The challenge for marketers, enhanced by a significant gap in marketing literature in the BOP market segment, is how to build value propositions based on brand and pricing strategies that meet the needs of these low-income and high-value-consciousness consumers. The purpose of the current study (see Chapter 1) was to gain insight into the decision-making process of low-

income consumers by measuring the importance and effect of price and brands on low-income consumers' product preference.

#### **4.5. CONCLUSION**

Chikweche and Fletcher's (2010) research addresses a gap in existing literature in understanding BOP consumers' perceived importance and the effect of brands on their purchase decisions. The purpose of the current study was to further address this gap, while also assessing the independent and interdependent effect of price (Chapter 3) on low-income consumers' decision-making and product preference. The multifaceted nature of the current study thus contributes a more holistic perspective on the broad theory of consumer behaviour and consumer decision-making (Chapter 2) and unique insight specifically within the BOP market segment. The BOP is identified as a relevant and viable, albeit under-served, market segment with immense profit potential for firms willing to build specialised value propositions to address the unique needs and challenges of low-income consumers.

Contributions that the current study could make include sharing understanding of consumer behaviour of the BOP market segment, as well as offering strategic advice to firms interested in entering into and succeeding in this untapped market segment (Prahalad and Hammond, 2002). Given the importance and significance and value of this market and the effect of price and brand (both important marketing tools) on consumer choice behaviour, the effort to conduct further research was justified.

## CHAPTER 5 | RESEARCH METHOD

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### 5.1. INTRODUCTION

Marketing research calls for the employment of the scientific method when collecting and analysing data to ensure accurate, valid and reliable results and conclusions. Following the theory surrounding consumer behaviour and decision-making (Chapter 2), and the effects of price and brand thereon (Chapter 3) in the context of the BOP (Chapter 4), this chapter, building on the outline provided in Chapter 1, discusses the marketing research process used to assess the role of price and brand on low-income consumers' product preference.

The research design is an outline of the secondary and primary research method, sampling procedure, data collection and fieldwork. Each aspect is discussed as an important component of the marketing research process, in addressing the research objectives derived from the problem statement. An overview of the scientific method, and marketing research process is provided, which discusses the purposes of these different elements and provides a starting point for this chapter. Ethical considerations are also outlined. The completion of fieldwork and the collection and capturing of data, marks the end of this part of the research process, followed by data findings and analysis in Chapter 6.

### 5.2. MARKETING RESEARCH AND THE SCIENTIFIC METHOD

According to Zikmund *et al.* (2010: 5) “the purpose of research is to provide knowledge regarding the organisation, the market, the economy or another area of uncertainty” to be used by for firms and decision-makers when making strategic business decisions. In this light, the “ultimate goal of research is to supply accurate information that reduces uncertainty in managerial decision-making” (Zikmund *et al.*, 2010: 5).

As discussed in Chapter 1, marketing research, a specialised form of business research, can be defined as the application of the scientific method in searching for truth surrounding

marketing phenomena, and providing information to guide managerial decision-making (Kotler and Keller, 2009, Grover and Vriens, 2006). While business research covers a broad range of business contexts, *marketing research* is orientated around the consumer, and explores and describes research problems that are directly related to consumers and their behaviour. The current study employed basic marketing research in order to expand the body of knowledge surrounding low-income product preference. Unlike applied research that focuses on a specific business problem experienced by a specific firm, basic research guides the researcher to empirically test existing theories and build new theories that can explain the research problem (Kimmel, 1988).

The scientific method (Table 5.1) provides a blueprint for marketing research to reach reliable conclusions about the real world. Although outlining a “set of prescribed procedures for establishing and connecting theoretical statements about events, for analysing empirical evidence and for predicting events yet unknown”, the scientific method cannot be understood as a linear and static process, but rather as iterative stages (Kotler and Keller, 2009: 45).

**Table 5.1: The scientific method**

<b>THE SCIENTIFIC METHOD</b>	
1.	Assessment of relevant existing knowledge of a phenomena
2.	Formulation of concepts and propositions
3.	Statement of hypotheses
4.	Design of research to test hypotheses
5.	Acquisition of meaningful empirical data
6.	Analysis and evaluation of data
7.	Proposal of an explanation of the phenomenon of new problems raised by the research

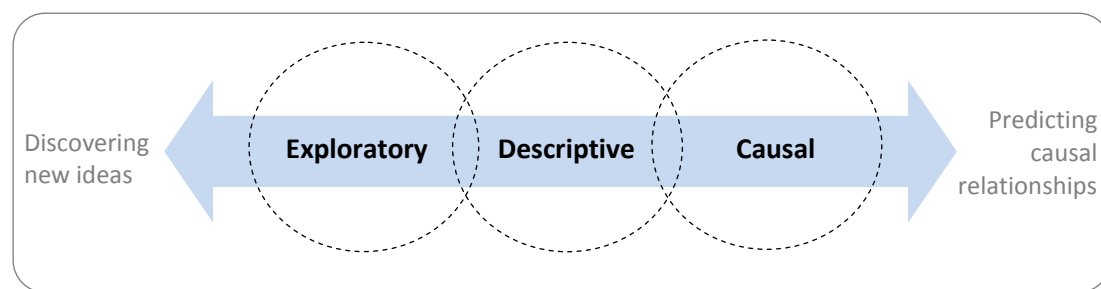
Source: Adapted from Kotler and Keller (2009)

These stages guide the formulation of the problem statement, the derivation of the research hypotheses, the testing of hypotheses against empirical evidence, and the extrapolation of the results to generate new theories and knowledge (Zikmund *et al.*, 2010). The scientific method corresponds with the positivistic paradigm adopted by the researcher in the quantitative

methodology of the current study, and follows systematic rules of logic and measurement while ensuring objectivity, reliability and validity.

### 5.2.1. Types of research

As discussed, marketing research is undertaken to reduce uncertainty and focus decision-making. Different levels of uncertainty and complexity thus require different types of research in order to achieve reliable and valid results. Marketing research is broadly classified into three types of research, namely exploratory, descriptive or causal (Churchill and Iacobucci, 2012, Malhotra, 2006). These different types, illustrated in Figure 5.1, are used to address different types of research objectives and provide a basic framework for the research process.



**Figure 5.1: Types of primary research**

Source: Adapted from Kotler and Keller (2009)

*Exploratory research* emphasises the discovery of ideas and insights and often looks to generate possible explanations for new or ambiguous occurrences, establish priorities for research and eliminate impractical ideas (Kotler and Keller, 2009). It often represents the initial step of the research process and helps to narrow and refine research questions. The problem statement, outlined in Chapter 1, was formulated through exploratory research by reviewing the existing literature surrounding consumer behaviour, together with the concepts of price and brand in the context of the BOP market segment.

*Descriptive research* “provides a detailed account of a social setting, a group of people, a community, a situation, or some other phenomenon” (Given, 2007: 251). Descriptive research

studies can generate information that marks the midpoint of the knowledge spectrum between exploratory and explanatory designs, through supporting the results of a successful exploratory study, while offering deeper and more relevant insights which can be used in a explanatory study (Kotler and Keller, 2009).

*Causal research* focuses on identifying cause-and-effect relationships, duly tested via experiments. Characteristically the most robust research type, casual research provides the greatest insight into a research area, and is built upon the concept of causality – that is the inference of a probabilistic relationship between variables. Three criteria or types of evidence are necessary to support scientific inferences, all of which are provided for through experiments.

*Concomitant variation* indicates the “extent to which X and Y occur together in the way predicted by the hypothesis” (Churchill and Iacobucci, 2012: 99, Silva, 2008). Supporting evidence of the said concomitant variation thus infers that the association makes the hypothesis “X causes Y” more probable. *Time order of occurrence of variables* refers to the sequential ordering of the occurrence of variables X and Y and also adds evidence to support the inference of a causal relationship between the two (Kotler and Keller, 2009). *Elimination of other possible causal factors* requires a more logical approach to the research method and process. Also known as non-spurious association, this type of evidence supporting causality means that the chance of an extraneous factor having interfered in the inferred relationship is small (Zikmund *et al.*, 2010, Silva, 2008).

Causal research was the most appropriate primary research method for the current study. While the focus on low-income consumers is a relatively new research area – particularly in the South African context – the concepts of price, brand and product preference are well-established, requiring little exploratory research above that needed to conceptualise the problem statement. Furthermore, while descriptive research could have been applied to the

study, it limits the validity and reliability of the conclusions by offering more generalised results.

### 5.3. THE MARKETING RESEARCH PROCESS

The marketing research process leverages the scientific method (see Table 5.1) of using empirical data to test hypotheses in order to establish new knowledge about certain business phenomena. Table 5.2 outlines the generic steps of the marketing research process as applied in the current study, as relevant to the steps of the scientific method (Zikmund *et al.*, 2010).

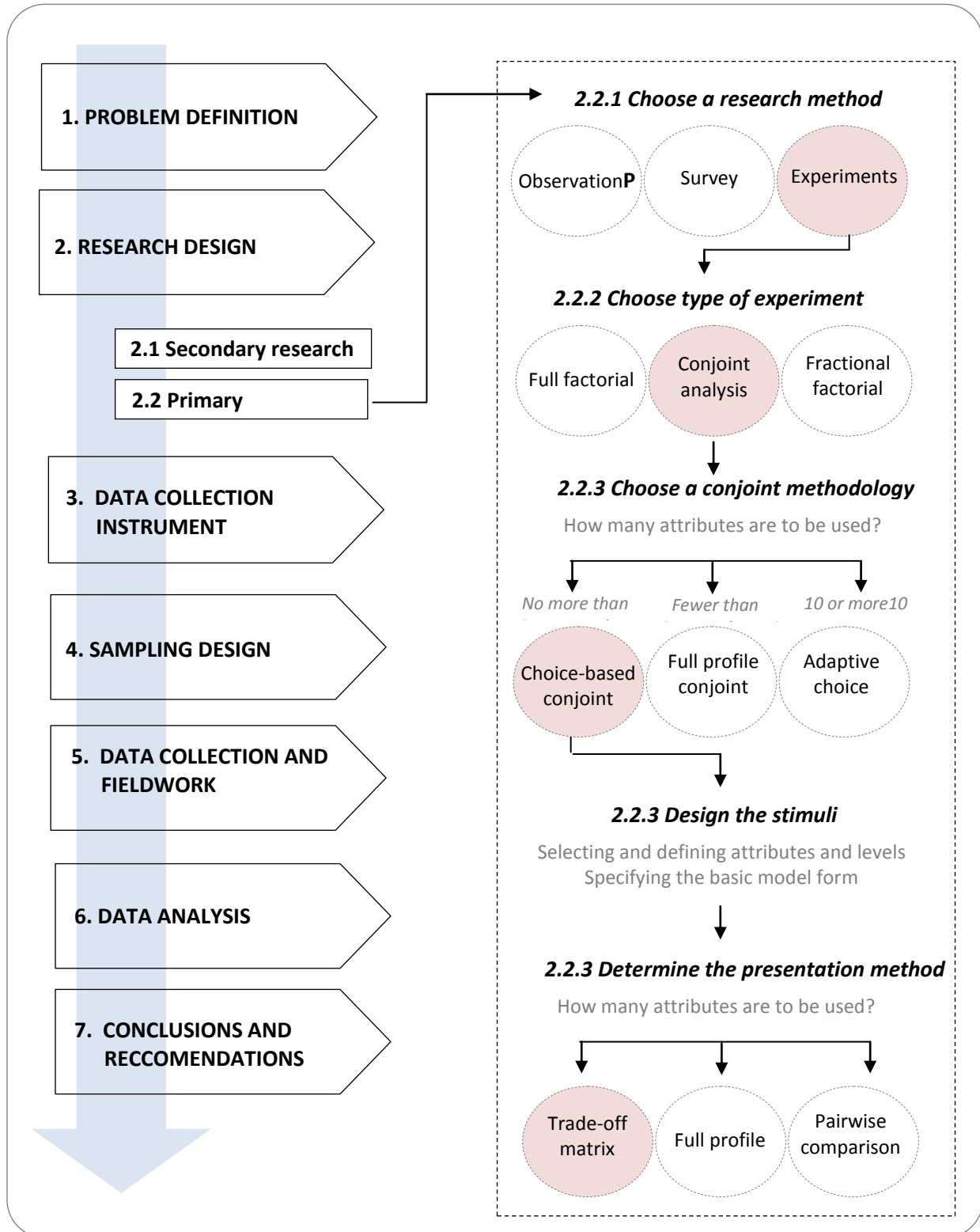
**Table 5.2: The marketing research process**

THE MARKETING RESEARCH PROCESS	CURRENT RESEARCH PROCESS	SCIENTIFIC METHOD
<b>1. Define the problem and research objectives</b>	<i>Literature review (Chapter 2, 3, 4)</i>	1. Assessment of relevant existing knowledge of a phenomenon
	<i>Problem statement</i>	2. Formulation of concepts and propositions
<b>2. Planning the research design</b>	<i>Research design</i> <ul style="list-style-type: none"> <li>• <i>Secondary research</i></li> <li>• <i>Primary research</i></li> <li>• <i>Data collection instrument</i></li> </ul>	3. Statement of hypotheses 4. Design of research to test hypotheses
<b>3. Planning a sample</b>	<i>Sampling design</i>	5. Acquisition of meaningful empirical data
<b>4. Collecting the data</b>	<i>Fieldwork and data collection</i>	
<b>5. Analysing the data</b>	<i>Data analysis</i>	6. Analysis and evaluation of data
<b>6. Presenting the findings</b>	<i>Chapter 6</i>	7. Proposal of an explanation of the phenomenon of new problems raised by the research
<b>7. Conclusions and recommendations</b>	<i>Chapter 7</i>	

Source: Adapted from Kotler and Keller (2009)

The marketing research process was used as a guideline to execute the current study, in order to ensure reliable and valid results. As discussed in Chapter 1, the research method is discussed in the remainder of the chapter addressing the problem definition and development of the research objectives in the problem statement, the planning of the secondary and primary research design, the development of the data collection instrument, the planning of

the sample design, and the collecting of primary data via fieldwork (see Figure 5.2 as shown in Figure 1.5). The procedures for data analysis are outlined with ethical considerations closing this chapter.



**Figure 5.2: The marketing research process and experimental design**

Source: Adapted from Kotler and Keller (2009), Malhotra (2007)



#### 5.4. PROBLEM STATEMENT

As discussed in Chapter 1, researchers concur that complex relationships exist among price, affordability, brand familiarity built through prior experience, perceptions of quality, and consumers' product preference (Bornemann and Homburg, 2011, Chikweche and Fletcher, 2010, Biswaqs, 1992, Etgar and Malhotra, 1981, Monroe, 1976, Jacoby *et al.*, 1971, McConnell, 1968, Tull *et al.*, 1964, Leavitt, 1954). Individuals who are faced with alternatives, incomplete information, limited resources and limited time, are forced to make trade-offs based on different cues, while also being guided by their perceptions of quality and value (see Chapter 2). These trade-offs guide peoples' choices as they aim to satisfy their needs as best as possible (Jackson, 2005).

In Chapter 3, price and brand were identified as two cues that may influence the consumers' decision-making process, and are largely determined by managers (Frutcher, 2009, Shapiro, 1973, Jacoby *et al.*, 1971, Stafford and Enis, 1969). Understanding the effect of price and brands on consumers' decision-buying behaviour will allow the importance of these two cues to be ascertained (Tariq *et al.*, 2013, Dick, Jain and Richardson, 1997). The subsequent findings may help managers to better address the needs of consumers through the formulation and execution of effective value propositions, increasing profits, and by building sustained customer satisfaction.

Targeting the right market segment is also an important managerial decision guiding firms to focus their resources on the market segment(s) with the greatest potential for growth and profits (Bothma, 2013, Kotler and Keller, 2008, Parumasur and Roberts-Lombard, 2012). Chapter 4 provided a review of the evolving body of knowledge dedicated to understanding low-income consumers at the BOP, and highlighted the relevance and scope of this largely under-served market segment (Wood *et al.*, 2008, Guesalaga and Marshall, 2008, Choi *et al.*, 2008, D'Andrea *et al.*, 2006). The extant literature covers the many challenges facing low-income consumers (Weidner *et al.*, 2010, Chikweche and Fletcher, 2010, Hamilton and

Catterall, 2005). It also covers the role of branding in this market segment (Beneke, 2010, Chikweche and Fletcher, 2010, Pitta *et al.*, 2008, Moore, 2006), as well as the socio-economic significance of uplifting the bottom billion (Prahalad, 2005, Prahalad and Hart, 2002). However, important questions regarding the purchase behaviour of low-income consumers remain largely unanswered. More specifically, questions surrounding the importance and interdependent effect of price and brand on low-income consumers' product preference remain relatively unexplored. In South Africa, this research opportunity is still novel.

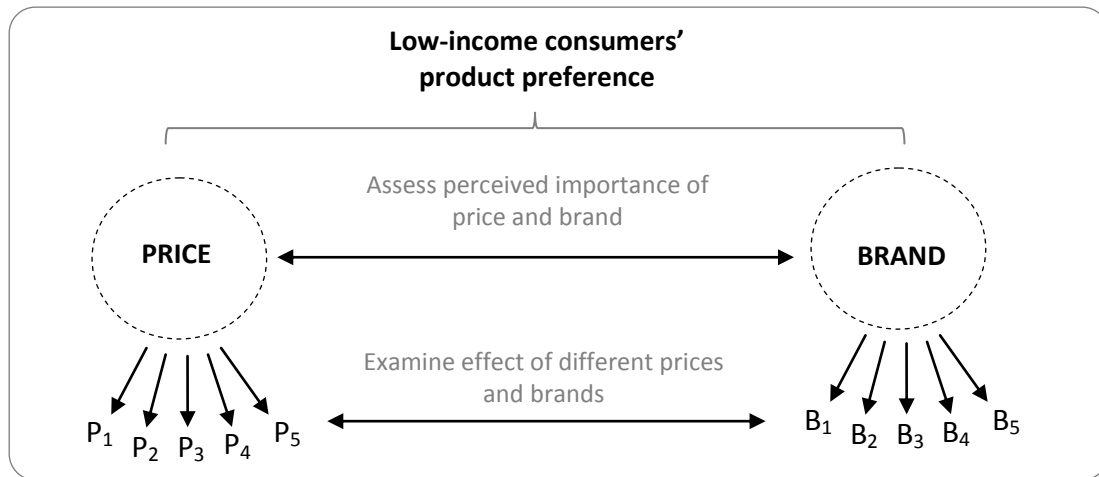
This study was thus undertaken to assess the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examine the effect of different prices and brands on low-income consumers' product preference. The knowledge gained through this research should ideally facilitate the process of advancing BOP retail research in an academic context, and expand the understanding of the effect of price and brands on consumers' decision-making, thereby encouraging improved brand positioning, increased market share and profit optimisation in the managerial context.

#### **5.4.1. Research objectives**

The research objectives provide measurable goals to be achieved by conducting research and form part of the first step of the marketing research process (see Table 5.2) (Zikmund *et al.*, 2010). The problem statement and the primary objective of this study are to *assess the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examine the effect of different prices and brands on low-income consumers' product preference*. Secondary research objectives (Figure 5.3) were developed to assess the importance and examine the effect of different prices and brands on low-income consumers' product preference, specifically:

- To assess the importance of price and brand on low-income consumers' decision-making process.

- To examine effect of different prices ( $P_1 / P_2 / P_3 / P_4 / P_5$ ) and brands ( $B_1 / B_2 / B_3 / B_4 / B_5$ ) on low-income consumers' product preference.



**Figure 5.3: Secondary research objectives**

## 5.5. RESEARCH DESIGN

The next step in the marketing research process (see Figure 5.2) was to plan the secondary and primary research design. The research design is the “master plan that specifies the methods and procedures for collecting and analysing” the information required to satisfy the research objectives (Zikmund *et al.*, 2010: 66). As part of planning the research design, the basic research method and design technique of both secondary and primary research, the data collection instrument, the sampling design, fieldwork, data collection and data analysis were all considered. Certain research requirements were also accommodated through the research design. This section outlines the process of identifying the appropriate research design.

In order to build a reliable and repeatable method of addressing the research objectives, certain possible challengers were considered in the planning of the research design. Owing to the low-income target market, the data collection instrument needed to be easily understood, to overcome possible literacy and interpretation challenges. Responding to Monroe’s (1976) criticism of prior single-variable designs, the current study required a multi-variable design that allowed for the dual and interacting effects of price and brands on low-income product

preference to be measured and assessed. Furthermore, to ensure valid results, the research design should present a realistic depiction of the trade-offs between alternative combinations of price and brand, in order to generate realistic choices and accurate measurement of behaviour. These research requirements were considered in the research design, and were central to guiding the decisions regarding secondary and primary research.

#### **5.5.1. Secondary research**

Secondary research guided the collection of relevant information and data already reported in research literature. While either qualitative or quantitative research is possible, secondary research is largely the former, as was the case for the current study. Journal articles, internet sources and books were sourced through secondary research. As illustrated in Figure 5.4, the secondary research explored the concept of consumer behaviour and related choice, and the influence of price and brand thereof (as discussed in Chapter 2 and 3 respectively). The importance, relevance, scope and key characteristics of the BOP and low-income consumers were discussed in Chapter 4, highlighting the gap in the understanding of this diverse market segment.

Monroe (1976), while introducing the seminal work on the influence of price differences and familiarity on brand preferences, comments that one of the limitations of past research is that price was considered in isolated settings, highlighting the need for a research design that facilitates a multi-variable environment that closely represents consumers' real-life experience (Jacoby, Olson and Haddock, 1971). With insufficient secondary data available to satisfactorily satisfy the objectives, primary research was employed to collect relevant and reliable data that most closely represents consumers' actual experience and product preference (Tustin *et al.*, 2005).

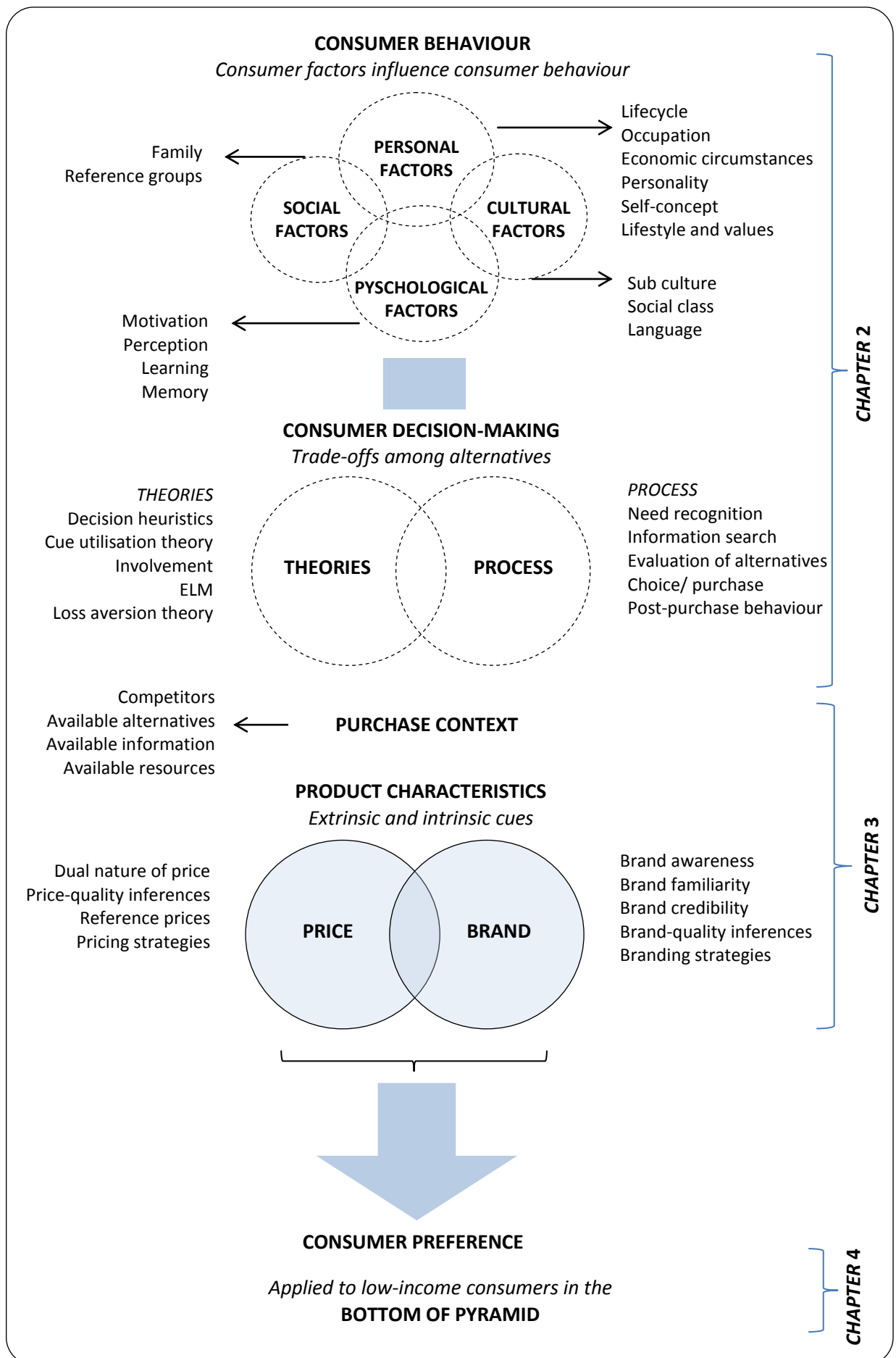


Figure 5.4: Overview of secondary research

### 5.5.2. Primary research

As outlined in Chapter 1, basic research methods available for primary research can be divided into broad techniques, namely survey, observation, and experiment (see Figure 5.2). Survey techniques employ interviews or questionnaires to collect data through communication with a sample of the target population, observation techniques refer to the systematic process of recording the behavioural patterns of people, objects and occurrences as they are witnessed. Experimental techniques allow the researcher to control the research situation so that causal relationships among variables may be evaluated (Kotler and Keller, 2009).

Choosing the type of primary research most appropriate to the study was done after considering the problem statement and research objectives. Subsequently, an experimental design was employed to address the research objectives. Experimental designs attempt to overcome the lack of market control that exists in marketing and retail research, in light of dynamic and multi-faceted consumer decision-making. As illustrated in Figure 5.2, after the primary research method was chosen, various decisions were made to create the appropriate experimental design, beginning with choosing the most suitable type of experiment. The type and design of the experiment depended on the type of data required, the expected level of reliability, and the practical implications associated with the problem under investigation (Walliman, 2006).

#### 4.5.2.1. Choosing the type of experiment

Experiments can be distinguished as *laboratory* (conducted in artificial controlled setting) or *field* (conducted in a natural setting with limited control) experiments, and use various designs (Kotler and Keller, 2009). As discussed by Campbell and Stanley (1963), experimental designs fall under three broad categories, namely pre-experimental designs, true experimental designs and quasi-experimental designs.

*Pre-experimental* designs refer to designs involving one group, and those that compare pre-existing groups, and include one-shot case studies (observations occur after the experiment only), one-group pre-test–post-test (observations occur before and after treatment), and static group comparison (observations occur before and after treatment and compared to control group) (Kotler and Keller, 2009, Walliman, 2006, Campbell and Stanley, 1963). Pre-experimental designs have relatively low reliability and validity, and poor predictive ability owing to the lack of control over extraneous variables. *True experimental* designs refer to more sophisticated experiments that use random selection and assignment to treatment conditions in order to minimise possible errors, and therefore have the strongest internal and external validity, such as a post-test-only control group design (Observations occur after treatment of randomly assigned test group is administered, and compared to that of control group). However, true experimental designs are difficult and expensive to conduct, and in some cases, not possible in light of the research question. *Quasi-experimental* designs offer an alternative from true experimental designs without compromising reliability and validity (Shadish, Cook and Campbell, 2002). Quasi-experimental designs have treatments, outcome measures, and experimental conditions but differ from true experiments in that they do not necessarily use random selection and assignment to treatment conditions (Walliman, 2006, Campbell and Stanley, 1963).

The current study employed a quasi-experimental design, using random assignment of treatment conditions. The complexity of the process by which consumers compare brands on sets of determinant attributes, form final choice sets and evaluate alternatives, led researchers to choose conjoint analysis as the most suitable type of experiment (Louviere, 1988). Conjoint measurement techniques are the most widely used marketing research method for analysing consumer trade-offs and measuring consumers' preferences and product choice, thereby modelling buying behaviour (Eggers and Sattler, 2011, Green *et al.*, 2003, Krieger and Wind, 2001, Wittink *et al.*, 1992, Elrod *et al.*, 1992). First introduced by Luce and Tukey (1964), conjoint analysis deals with the central problem for marketing researchers – that is,

measuring consumer trade-offs for developing new or reformulated products and estimating price-demand functions (Green *et al.*, 2001, Gustaffsson *et al.*, 2003).

As outlined in Chapter 1, products and services are understood in conjoint analysis to be a combination of attributes (such as price, brand and/or benefits) at different levels (different prices, brands and/or benefits), that are evaluated dynamically when consumers face alternatives. By applying this preference measurement, researchers are able to determine the relative importance of these attributes and levels by understanding the value that individuals attach to them, when attempting to maximise their total utility in the purchase decision (Malhotra, 2007, Bakken and Frazier, 2006). In this way, conjoint analysis represents a decompositional approach to attempting to elicit consumer preferences (Eggers and Sattler, 2011). Contrary to compositional approaches where respondents evaluate product attributes and levels separately, and a perceived utility is composed of these independent ratings – decompositional approaches evaluate entire products by considering their attributes and levels jointly. This more realistically reflects consumers' complex decision-making processes (Bakken and Frazier 2006, Haaijer and Wedel, 2003, Green and Srivinasan, 1990).

Green, Krieger and Wind (2001) explain conjoint analysis as being able to develop and present descriptions of alternative products or services that are constructed using fractional factorial and other designs. Where full factorials often require large sample sizes to produce reliable results, conjoint analysis employs different criteria (balance, orthogonality, minimal overlap, utility balance) in order to construct the choice sets shown to respondents and reduce the number of stimulus descriptions required. More variables are thus able to be included in the proposed research design without requiring an impractical sample size (Eggers and Sattler, 2011, Huber and Zwerina, 1996). Following the choice of conjoint analysis as the experimental design, the next step in designing the experiment (see Figure 5.2) was choosing the conjoint methodology.



#### 4.5.2.2. Choosing the conjoint methodology

The choice of the appropriate conjoint methodology was determined by the number of attributes required in order to satisfy the research objectives. There are three main approaches, namely full-profile conjoint, adaptive conjoint and choice-based conjoint, as seen in Figure 5.2 (Bakken and Frazier, 2006). *Full-profile* conjoint methods present complete profiles of the alternatives consisting of one level for each of the attributes, and are appropriate for designs with fewer than ten attributes (Green and Rao, 1971). *Adaptive* conjoint methods emerged in response to the practical limitations of the full-profile methods, and facilitate ten or more attributes through the use of partial profiles and self-explicated information (Green, Goldberg, and Montemayor, 1981). *Choice-based* conjoint methods are an extension of adaptive conjoint that allow the simulation of a set of competitive alternatives in the marketplace for no more than six attributes, making it appropriate for the current study (Eggers and Satler, 2011, Louivere and Woodworth, 1983).

Louivere and Woodworth (1983) introduced choice-based conjoint (CBC) methods, based on the mathematical formulations developed by Luce (1959) and McFadden (1974), by integrating the concepts of discrete choice theory into conjoint analysis. In this way, a new approach to the design and analysis of controlled consumer choice or resource allocation experiments was developed. CBC holds distinct advantage over full-profile and adaptive conjoint methods, by allowing for realistic choice sets to be reconstructed, while minimising the chance of respondent fatigue. The ability to incorporate realistic interdependence among the attributes and levels tested in the experiment is also an advantage of the CBC method (Bakken and Frazier, 2006).

For the purpose of this study, CBC experiments allowed the researcher to estimate preferences for current product attributes at different levels, as well as predict preferences of combinations of attributes and levels not present. Conducting the CBC required different

attributes and levels of the chosen product to be selected and defined, introducing the next step of designing the experiment.

#### **4.5.2.3. Designing the stimuli**

In the CBC, designing the stimuli refers to the process of selecting the appropriate product category and defining the attributes and levels of the chosen product, in line with the research objectives. The basic model form is also specified in this stage of designing the experiment.

The appropriate product category was first identified using qualitative primary research. Qualitative research was employed in this stage of the experimental design in order to explore the different product categories most bought and accessible to low-income consumers in South Africa. Unlike quantitative research that focuses primarily on testing theories and specific research hypotheses, qualitative research is inductive through a deductive theory-based process. It makes use of context-specific research that focuses on observing or describing a specific phenomenon generally used to generate new research hypotheses and theories (Zikmund *et al.*, 2010, Kalaian, 2008).

The primary qualitative research was built on more flexible guidelines, using small informative samples to collect data through observation and personal interviews (Leedy and Omrod, 2001). Relying on the subjective interpretation of the researcher, qualitative primary research produced largely subjective data that was used to ensure a thorough understanding of the concepts of price, brand, price and brand strategies, and product choice in the low-income market segment (Kotler and Keller, 2009, Kalaian, 2008, Leedy and Ormrod, 2001).

The purpose of the primary qualitative research, building upon the findings of the secondary research, was to select the appropriate product category (including package size) for the experiment, and determine the appropriate attributes and levels relevant to this product. Primary qualitative research was carried out at four prominent retailer branches in Cape Town, namely Pick n Pay Plumstead, Checkers Plumstead, Shoprite Plumstead, Pick n Pay

Wynberg, where unstructured interviews with store managers, packers, and customers were conducted regarding perceptions of brand familiarity, price, and the effect of price and brand on demand of products in four different categories. These stores were chosen using purposive sampling, identified as stores accessible (close proximity to public transport) and popular with low-income consumer base.

Four product categories, namely whole frozen/fresh chickens, rice, canned fish and maize meal were identified as popular among low-income consumers and thus relevant and realistic alternatives. The findings for each alternative are outlined below, with the maize meal category ultimately being chosen as most appropriate.

- **Whole frozen/ fresh chickens**

Statistics indicate roughly 30 per cent of LSM 1-4 are medium users of chicken (have bought 3-4 times in the past four weeks) across the regions of Kwa-Zulu Natal, Western Cape and Gauteng (SAARF, 2012). Rainbow Chicken is the most popular brand with roughly 40 per cent usually buying this brand, while *Farmer Brown*, *OBC Chicken* and retail house brands are also often bought. Although purchased relatively often by people in the LSM 1–4 lifestyle bracket, the chicken product category can be seen as a premium product in this market segment because it is expensive relative to maize meal, rice and canned fish. The need for the product to be refrigerated is also a consideration, as this requirement also may exclude certain individuals from the targeted market. Finding a general, homogenous product was difficult since chicken is priced by the kilogram rather than per a prescribed package weight. The varying product lines for chicken also made it difficult to identify a homogenous product offered by different brands, thus excluding it from the current study.

- **Rice**

Rice was also considered as a possible product category. According to in-store managers, it is a popular product in the low-income market segment, with homogenous package offerings. With Tastic as the dominant market leader, and with a strong reputation for quality, the rice product category also offers a range of prices (see Table 5.3) and quality levels which would be appropriate for the current study. However, interviews conducted with various store managers confirmed that maize meal is more popular among low-income consumers, whereas generally consumers switch to rice as their income increases. The risk of excluding low-income consumers made rice inappropriate for the purpose of the current study.

**Table 5.3: Price distribution of rice (2 kg)**

Brand	PnP Plumstead	Checkers Plumstead	Shoprite Plumstead	Shoprite Wynberg	PnP Wynberg
<b>Tastic</b>	R23.29	R24.99	R24.99	R24.99	R23.29
<b>Paddy</b>	R16.99	-	-	-	R16.99
<b>Nice Rice</b>	R16.99	-	-	-	-
<b>House Brand</b>	R20.99	R15.99	R12.99**	R12.99	R20.99
<b>Spekko</b>	-	R21.99	R21.99*	R21.99	R16.95
<b>Pot o Gold</b>	-	R15.99	R15.99	R15.99	-
<b>Chopstix</b>	-	-	-	R15.99	-
<b>Wellington</b>	-	-	-	R17.00	-

\*Most popular brand according to manager

\*\* On promotion

- **Canned fish**

Statistics indicated that between 10 per cent and 20 per cent of LSM 1–4 are medium users of canned fish (3–4 times in the past four weeks) (SAARF, 2012). The most popular brand is Lucky Star with over 50 per cent of LSM 2, 3 and 4 showing brand preference toward this product. Other brands include Glenryck, John West (although not popular), Saldanha and retail house brands. Overall, roughly 20 per cent of the first four income groups are medium users, with no noticeable difference in consumption between Gauteng and Kwa-Zulu Natal. The price range for this product as found in various stores is seen in Table 5.4. Canned fish is well within the price

range of the targeted market segment, provides homogenous product offerings, and shows some price differences between different brands, addressing the variables outlined in the research objectives (see 5.3.1). However, managers and merchandise managers in-store agreed that it is not considered a staple such as maize meal or rice, which are in more general and regular use.

**Table 5.4: Price distribution for canned fish (400g)**

<i>Brand</i>	<b>PnP Plumstead</b>	<b>Checkers Plumstead</b>	<b>Shoprite Plumstead</b>	<b>Shoprite Wynberg</b>	<b>PnP Wynberg</b>
<b>Saldanha</b>	R12.49	R12.49	R12.49	R12.49	R12.49
<b>Lucky Star</b>	R12.95	R12.95	R12.95	R12.95	R12.95
<b>Glenryck</b>	R12.79	R12.79	R12.79	-	-
<b>House Brand</b>	R9.99	R10.79	-	R10.79	R9.99

- **Maize meal**

Maize meal is a known staple food for the low-income market segment, corroborated by staff of the various retailers (D’Haese and Huylenbroeck, 2005). This product category offers homogenous product packages (2.5 kg, 5kg, 10kg, 25kg), at a range of prices (Table 5.5). Roughly 20 per cent of LSM 1–4 are medium users (3–4 times in the past four weeks) of maize meal, with ACE and White Star found to be the most popular (SAARF, 2012). Overall, the maize meal product category is accessible for almost all of the low-income market and a popular choice, making it suitable and appropriate for the CBC study design.

Although larger sizes (10kg and 25kg) were available, the 5kg size was in keeping with the buying profile built according to the literature review. Low-income consumers are expected to purchase larger size packages for greater value, yet, constrained by their limited disposable income and cash flow, are not always able to buy large bulk items. These choices allowed the effect of different prices on low-income consumer’s product choice to be tested.

**Table 5.5: Price distribution for maize meal (5 kg)**

<b>Brand</b>	<b>PnP Plumstead</b>	<b>Checkers Plumstead</b>	<b>Shoprite Plumstead</b>	<b>Shoprite Wynberg</b>	<b>PnP Wynberg MR</b>
<b>Iwisa</b>	R25.99*	-	R31.95*	R31.95*	R25.99 *(promo)
<b>Ace</b>	R30.49	-	-	-	R30.49
<b>Impala</b>	R28.49	-	R29.99	R29.99	R28.49
<b>White Star</b>	-	R35.99	R35.99	R35.99	-

\*Most popular brand according to manager

Thus, the results of this primary qualitative research determined *5kg super maize meal* to be the most appropriate product category. Following the product choice and designing the stimuli, researchers needed to identify which appropriate attributes and levels would provide a realistic representation of the chosen product category as seen in the marketplace.

Attributes of maize meal were identified as *price* and *brand*. Although one can argue that taste, texture and colour are also attributes of this product, these factors are not measurable in the context of in-store purchases, and rely instead on the subjective prior experience of consumers with particular brands. These were considered “noise” variables and were considered in the extrapolation of the managerial conclusions. Package size was not subject to experimental variation, and was kept constant at five kilogram pack sizes.

Following Eggers and Sattler’s (2011) suggestions that attributes should be restricted to less than six, while levels should be no more than seven – and in order to avoid the number-of-levels effect (occurring when levels are not distributed equally across attributes), both attributes were assigned five levels, ensuring that no artificial bias was created between them (Eggers and Sattler, 2011). Furthermore, in order for the discrete choice model to be estimated, the alternatives built through the attributes and levels were mutually exclusive from the perspective of the decision-maker, and collectively exhaustive in the context of the experiment (Bakken and Frazier, 2006).

The levels for the attribute *brand* represented five different brands: two popular existing national brands (*White Star* and *Ace*), one additional national brand that recently rebranded

their products (*Iwisa*), one hypothetical national brand (*Mnandi*), and one hypothetical store brand (Shoprite's *Ritebrand*).

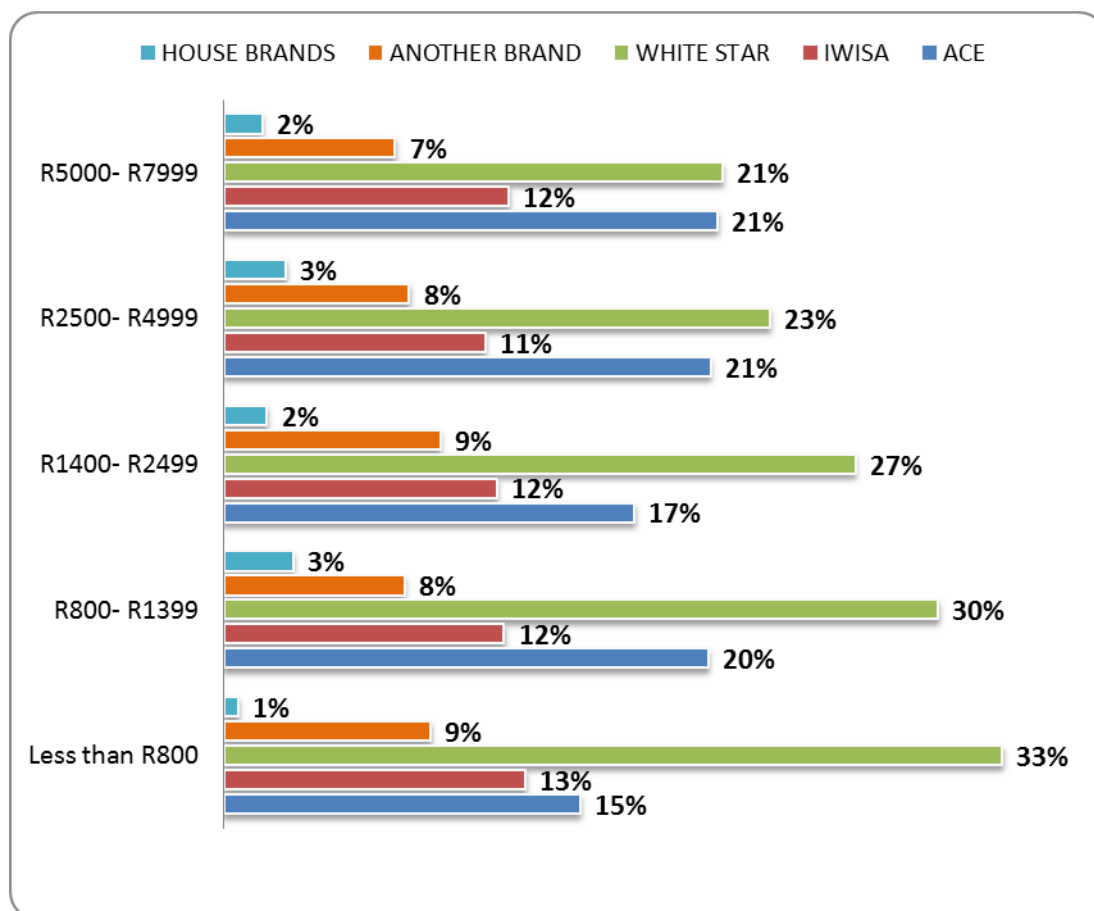
These brands were chosen on the basis of the study's primary qualitative research, as well as consumption data provided by SAARF (2013). As shown in Table 5.6, the brands in the maize meal category were categorised according to *most bought* by respondents falling into different income groups. In light of the focus on the low-income consumer as introduced in Chapter 1, the consumption of brands according to income reveals *White Star* as the most bought across various income groups, followed by *Ace* and *Iwisa* respectively.

**Table 5.6: Consumption of maize meal**

BRANDS	Less than R800	R800- R1399	R1400- R2499	R2500- R4999	R5000- R7999
ACE	15.0%	20.4%	17.3%	20.5%	20.8%
IWISA	12.7%	11.8%	11.5%	11.0%	12.0%
WHITE STAR	32.8%	30.1%	26.6%	23.0%	21.0%
ANOTHER BRAND	8.7%	7.6%	9.1%	7.8%	7.2%
HOUSE BRANDS	0.6%	2.9%	1.8%	2.6%	1.6%

Furthermore, as illustrated in Figure 5.6, *Iwisa* was seen consistently as *most bought* – significantly less than *Ace* and *White Star*, indicating a potentially smaller market share. *Another brand* and *House brands* were seen to be the least-preferred brands to be *most bought* across these income groups. This data reveals general trends in the share of the market in these income brackets across the national brands used in the current study, as well as giving some indication of the response that the hypothetical *other brand* and *store brand* may receive.

The trends extrapolated from the SAARF data (2013) were considered in the data analysis in Chapter 6 and in the formulating of results and conclusions in Chapter 7. The review of literature (Chapter 3) also suggested that brand familiarity and perceived quality are influential in the BOP market segment and in the FMCG category. The effects of prior experience and knowledge of brands were thus explored by incorporating well-known brands.



**Figure 5.5: Consumption of maize meal across income**

As mentioned, the study incorporated two hypothetical brands as well as the discussed national brands, in order to address the research objectives (see 5.3.1). Following the review of literature which found that consumers' perceptions of store brands may influence the consumers' perceived quality and risk of an unfamiliar product, a hypothetical product under Shoprite's familiar brand *Ritebrand* was developed, allowing for the possible effects of store brand to be explored. Shoprite was identified as the most popular grocery store for individuals falling into the LSM 1 and 2 categories (SAARF, 2012). Shoprite has enjoyed a strong brand image as "South Africa's No.1 supermarket" in the annual *Sunday Times*' top brands survey every year since 2006, and boasts a comprehensive infrastructure with 353 South African stores and over 400 internationally (Shoprite, 2013).

The second hypothetical brand *Mnandi* was designed to mirror the packaging of the existing products, providing a visually similar, albeit unfamiliar product. *Mnandi* means "nice"



referring to the taste of food and is a Zulu word – accessible and relatable to the targeted market segment. The hypothetical national brand and retailer store brand, both unfamiliar brands, allowed for the possible effects of previous experience and brand perceptions to be removed. These two hypothetical brands (see Appendix A) were designed and produced to mirror the colours and style of the other existing brands showing similar endorsements, so as to create the most realistic, visually similar alternatives.

Following the choice of the different brand levels of attribute *brand*, the different price levels of the attribute *price* were determined. Prices in the maize meal category across different stores, seen in Table 5.7, were monitored showing relatively stable prices for the national brands, and used to calculate the levels of the attribute price, used in the CBC.

**Table 5.7: Price of maize meal**

Brand	Price points					Average
ACE	R31.79	R28.99	-	-	-	R30.39
IWISA	R23.49*	R24.49*	R23.99*	<b>R24.99</b>	R31.99	R25.79
WHITE STAR	R26.99	R25.99	<b>R33.99</b>	R26.99	R30.99	R28.99
<b>Total Average</b>						<b>R28.39</b>

\*promotional prices

The attribute levels for *price* represented five different price points, derived from those seen in various retailers including Pick n Pay, Shoprite, Shoprite U-Save, Checkers, Game and local stores. These were calculated as follows: the lowest price seen in-store (excluding promotional prices), the average price seen in-store, the highest price seen in-store, 25 per cent higher than the highest price seen in-store, and 25 per cent lower than the lowest price seen in-store. The levels of price represented a realistic price range (all rounded to .99) and were created using both reference prices that consumers are familiar with, and unusually high and low prices. In summary, the attributes and levels of *price* and *brand* were determined using secondary and primary qualitative research, seen in Table 5.8 (as shown in Table 1.2).

**Table 5.8: Attributes and levels**

	<b>Brand</b>	<b>Price</b>	
<i>Market leader, familiar</i>	<b>Ace</b>	<b>R18.99</b>	<i>25 % lower</i>
<i>Familiar</i>	<b>White Star</b>	<b>R24.99</b>	<i>Lowest across stores</i>
<i>Familiar</i>	<b>Iwisa</b>	<b>R28.99</b>	<i>Average across stores</i>
<i>Hypothetical, unfamiliar</i>	<b>Mnandi</b>	<b>R33.99</b>	<i>Highest across stores</i>
<i>Hypothetical, familiar</i>	<b>Ritebrand</b>	<b>R42.99</b>	<i>25% higher</i>

The final element of designing the experiment was to specify the basic model form of the CBC. A two-factor experiment using a repeated measures design was used in the CBC conducted in the current study. Repeated measures design requires more than one response from the same respondents to each combination of attribute levels in order to understand individual decision-making (Kotler and Keller, 2009, Louivere, 1988). Selecting the presentation method is the next step of designing the experiment (see Figure 5.2). This determined the way in which the choice sets were presented to the respondents.

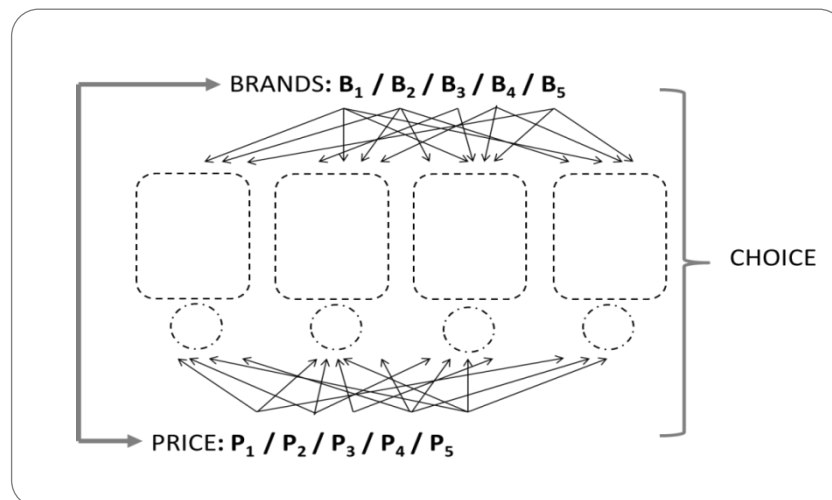
#### **4.5.2.4. Selecting the presentation method**

Different types of stimuli can be used to present the choice sets of attributes and levels to the respondents, depending on the problem statement (see 5.4) and target population. Selecting the presentation method determines the manner in which the choice elicitation task will be conducted, and the manner in which the choice sets will be presented to the respondents using a data collection instrument (Eggers and Sattler, 2011). The different options include using a trade-off matrix, full profile or pairwise comparison, and facilitate the collection of data to be used to determine the utilities associated with each attribute and level (Bakken and Frazier, 2006).

Trade-off matrices allow for different attributes at different levels to be presented simultaneously, and require respondents to indicate which attribute-level alternative they most and least prefer, in successive choice sets. The full-profile method allows for each attribute-level alternative to be shown independently, and requires respondents to rate their preference for each one. The pairwise comparison method requires the respondent to

successively compare two attribute-level alternatives against each other, until all the attribute-level alternatives have been evaluated. Considering the unique target population and specific research objectives developed for the current study, the trade-off matrix method was employed in presenting the alternatives in the choice sets to respondents.

As discussed in the design of the stimuli for the current study (see 5.5.2.3), two attributes (*price* and *brand*) were identified at five levels each, creating 25 possible attribute-level combinations. Following the trade-off matrix method, each choice set consisted of four brand-price alternatives, thereby giving respondents an evoked set of four alternatives from which to choose, as illustrated in Figure 5.6.



**Figure 5.6: CBC choice set**

In order to determine the most efficient choice design using the minimum number of sets, computerised searches were run, following the minimal overlap criterion requiring that “alternatives within a choice set are maximally different from one another”, thus developing the optimal design solution (Eggers and Sattler, 2011: 40). The optimal solution required each respondent to be exposed to six choice sets, each with four price-brand combinations, with no price-level or brand-level being repeated in independent choice sets.

In order to measure their preference for different brands and different prices, respondents were asked to indicate their most preferred (*Which option do you like most?*), and least preferred respectively (*Which option do you like least?*) among the four attribute-level (brand and price combinations) alternatives displayed visually (see example in Figure 5.7). The use of pictorial materials is supported by Green and Srinivasan (1990), making the task more interesting to the respondent and providing easier and perhaps less ambiguous ways of conveying information. Respondents were prevented from indicating the same combination for both questions, avoiding errors.



**Figure 5.7: Choice set visual**

Although CBC does allow for a no-choice option to be included (which adds realism to the experiment and increases external validity), this option brings the potential risk of respondents failing to make any choice thus preventing the estimation of their preference. The no-choice option was included as a separate question after each choice set (“Would you actually buy your most-liked choice if it was available?”), allowing for no choice to be considered in the data analysis and formulation of research conclusions and managerial recommendations, while allowing preference data to still be obtained. The layout of the CBC choice set included in the data collection instrument is outlined in Table 5.9, and satisfies the final step in designing the experiment as part of the research design.

**Table 5.9: The CBC choice set design**

Question ID	Question	Available options
<b>Instructions</b>	<i>Imagine that you are at the shops looking to buy maize. You come to the shelf and see these four products in 5 kg packages, at these prices.</i>	N/A
<b>Most</b>	Which option do you like most?	<i>Four alternatives</i>
<b>Least</b>	Which option do you like least?	<i>Four alternatives</i>
<b>Check</b>	Would you actually buy your most-liked choice if it was available?	Yes No

The experimental research design outlined in Figure 5.2 addressed the research objectives (see 5.4.2) while overcoming the expected obstacles associated with low-income consumers' possible literacy challenges through the use of visual stimuli. The CBC analysis and related questionnaire was administered electronically by personal interviews, making use of smartphones, laptop computers and tablets. The choice set central to the CBC was visually displayed, and automatically randomised using computer software for each respondent, ensuring that combinations were shown at similar frequency. The dual and interacting influences of price and brand were also accommodated, producing realistic trade-offs between different attributes and levels. The CBC was a useable design incorporating easy-to-understand visual stimuli while accommodating multi-variable analysis, mimicking realistic alternatives through the use of a fractional sample. Following the marketing research process, the data collection instrument used to elicit raw data from respondents was developed.

## 5.6. DATA COLLECTION INSTRUMENT

Developing the data collection instrument is the third step of the marketing research process (see Figure 5.2). The data collection instrument was the tool with which the choice elicitation task and presentation method (see 5.5.2.4) of the CBC was executed, and information regarding demographic, psychographic and purchase behaviour of the realised sample was collected.

According to Churchill (1979), developing a reliable, sensitive and valid measurement instrument is crucial for producing results of a high quality and thus contributing to the body of knowledge surrounding marketing and consumer behaviour. Before turning to the actual design of the measurement instrument (in this case referred to as the data collection instrument), the general properties of a measurement tool are discussed.

Measurement is defined as a “systematic, reliable process by which objects or events are quantified, classified or both on a particular dimension” (Bernard and Taffesse, 2012). In other words, measurement is the element of the research process whereby some property of a phenomenon of interest is described, usually by assigning numbers in a reliable and valid way (Zikmund *et al.*, 2010, Weiner, 2007). This process of translating objects, events and phenomenon into quantifiable values begins with establishing the level of scale measurement required to facilitate the statistical analysis used to test the research hypotheses and thus satisfy the research objectives.

The questionnaire (see Appendix B) used in the study constituted four parts, with questions pertaining to: (1) the choice sets showing price and brand alternatives established in the experimental design (see 5.5.2.4), (2) demographic information of respondents used to understand the lifestyle of the realised sample, (3) basic information regarding purchase behaviour, and (4) psychographic information regarding respondents’ attitudes toward brands and price. The questions were scrambled to reduce potential order bias and respondent fatigue from skewing the data collected. The various parts of the data collection instrument are discussed independently, followed by an evaluation of the usability, reliability and validity of the measurement instrument.

#### **5.6.1. CBC choice sets**

The CBC using choice sets provided a behavioural and decompositional approach to measuring the dependent variable of product preference, while accurately reflecting a real purchase situation. The choice design refers to which alternatives should be included in the

data collection instrument and how to allocate them across choice sets (Eggers and Sattler, 2011). Following the design of the CBC experiment (see 5.5.2), the researchers used a web-based platform (Preferencelab, 2013) to develop the data collection instrument for the CBC choice sets. An electronic questionnaire, accessed by the fieldworker via a web portal was used, which allowed for the visual elements required for the CBC to be included and easily randomised.

In order to avoid the risk of bias caused by the demand effect, the specific focus on price and brands was concealed from respondents (Hamlin *et al.*, 2012, Zikmund *et al.*, 2010). Requiring prior experience with the chosen product category, individuals were asked a screening question (“Have you bought maize meal before?”) before continuing the questionnaire. Prior experience with the product was necessary as it ensured that respondents would have some kind of reference context and knowledge of the prices and brands in the experiment, increasing its external validity.

#### 5.6.2. Demographic information

Basic demographic data (Table 5.10) was asked between the choice sets to reduce respondent fatigue and keep the respondent engaged throughout the questionnaire. This demographic information which included home language, age, household income, employment status and education level completed, allowed the researcher to validate the sample and gain further insights into the lifestyle of the respondents through descriptive analysis. The sum of the household items outlined in Table 5.10 (LSM) was used to indicate the respective LSM category of the respondents, ensuring they met the criteria established in the target population (5.7.1). Cell phone numbers were recorded for the purpose of back-checking.

**Table 5.10: Demographic questions**

Question ID	Questions	Available options
<b>Screening Question</b>	Have you ever bought super maize meal before?	Yes No
<b>LSM</b>	Which of these do you have in the household	Microwave Fridge/ Freezer

	where you live?	Washing machine TV set Hot running water Home telephone Car Credit facility/ accounts Tumble dryer	
<b>Education</b>	Up to what level of education have you completed?	Less than Grade 7 Grade 7 Grade 8 Grade 9 Grade 10 Grade 11 Grade 12 Post-matric Diploma level Degree level	
<b>Employment</b>	Do you have a job at the moment?	Yes, I have a full-time job Yes, I have a part-time job No, I do not have a job at the moment	
<b>Language</b>	What is your home language?	Sesotho isiZulu Afrikaans English isiNdebele isiXhosa Setswana siSwati Tshivenda Xitsonga	
<b>Age</b>	How old are you in years?	<i>Open-ended</i>	
<b>Income</b>	What is your family's average monthly income?	Less than R500 R500- R749 R750- R999 R1000- R1249 R1250- R1499 R1500- R1749 R1750- R1999 R2000- R2249 R2250- R2499 R2500- R2749 R2750- R2999 R3000- R3249 R3250- R3499 R3500- R3749 R3750- R3999 R4000- R4249	R4250- R4499 R4500- R4749 R4750- R4999 R5000- R5249 R5250- R5499 R5500- R5749 R5750- R5999 R6000- R6249 R6250- R6499 R6500- R6749 R6750- R6999 R7000- R7249 R7250- R7499 R7500- R7749 R7750- R7999 R8000+
<b>Cell phone</b>	What is your cell phone number?	<i>Open-ended</i>	



### 5.6.3. Purchase behaviour

Basic questions regarding the purchase behaviour of respondents in the maize meal category were included at the end of the questionnaire. Dealing with *store preference*, *purchase frequency*, *package size* and *brand preference*, the questions, shown in Table 5.11 provided additional information to support the current research design, and were considered in the data analysis in Chapter 6 and used to support the primary objective.

**Table 5.11: Items regarding purchase behaviour**

Question ID	Question	Alternatives
<b><i>Store preference</i></b>	Where do you usually buy maize meal?	Shoprite U-Save Pick n Pay Game Makro Checkers Local spaza shop
<b><i>Purchase frequency</i></b>	How often do you purchase maize meal?	Once a month Twice a month Three times a month Four times a month More than four times a month
<b><i>Package size</i></b>	Which package size do you usually buy?	2.5 kg 5 kg 10 kg
<b><i>Brand preference</i></b>	Which brand do you usually purchase?	Ace White Star Iwisa Laduma Impala

### 5.6.4. Psychographic information

The CBC constituted the majority of the primary data required to test the primary research objectives, however in light of some contention surrounding the effectiveness of behavioural measurements as opposed to attitudinal measurements (Rühle *et al.*, 2012, De Cannie`re *et al.*, 2009, Dick and Basu, 1994), constructs measuring consumer attitudes were also included. In support of the primary objective, the psychographic information regarding consumer

attitudes was collected and analysed in an attempt to understand the attitudinal aspects of the role of price and brand on low-income consumers' product preference.

A consumer's attitude is defined as an individual's internal evaluation of an object. Consumer attitudes have been widely researched in marketing, owing to their predictive power for consumer behaviour (Zarantonello and Schmitt, 2010, Mitchell and Olson, 1981). Various scales have been developed to measure consumer attitudes, however, as suggested by Durvasula *et al.* (1993), the cross-cultural generalisability of existing scales is limited. Furthermore, when using existing scales in a different context almost always requires adaptation, as was the case in the current study. Appropriate constructs were identified from existing scales drawn from various other sources (Table 5.12), measuring *price consciousness*, *store loyalty*, *brand loyalty*, *price-quality consciousness*, *financial constraints*, *quality consciousness* and *brand familiarity*.

**Table 5.12: Summary of existing scales**

Items	Source	Cronbach alpha
PRICE CONSCIOUSNESS		
I compare prices of at least a few brands before I choose one.	Ailwadi, Neslin and Geidenk, 2001; Darden and Perreault, 1976	0.790
It is important to me to get the best price for the products I buy.		
I tend to buy the lowest-priced brand of (category) that will fit my needs.	Sinha and Batra,1999	0.800
When buying a brand of (category) I look for the cheapest brand available.		
When it comes to buying (category) I rely heavily on price.		
Price is the most important factor when I am choosing a brand of (category).		
BRAND LOYALTY		
I prefer one brand of most products I buy.	Ailwadi, Neslin and Geidenk, 2001	0.864
I am willing to make an effort to search for my favourite brand.		
I always buy my favourite brand when I go grocery shopping.		

Usually, I care a lot about which particular brand I buy.		
PRICE-QUALITY CONSCIOUSNESS		
The price of a brand of (category) is a good indicator of its quality.		
I can usually judge the quality of a brand of (category) from its price.	Sinha and Batra,1999	0.780
In my opinion, higher prices of brands of (category) usually mean higher quality.		
In my opinion, inexpensive prices of brands of (category) are usually lower quality.		
Higher prices mean better quality.		
Lower prices mean lower quality.	Adapted from Sinha and Batra,1999	
My household often has problems making ends meet.		
QUALITY CONSCIOUSNESS		
I will not give up high quality for a lower price.	Ailwadi <i>et al.</i> , 2001	0.842
I always buy the best.		
It is important to me to buy high quality products.		
Better quality is better than a lower price.		
I buy products that are good quality.		
BRAND FAMILIARITY		
I do not like trying brands I have not heard about before.	Adapted	
I do not like trying brands I have not seen before.		
I do not like trying brands that are not familiar to me.		

A pre-test asked 30 respondents to complete the questionnaire. Respondents were asked to: “Listen to the following statements. To what extent do you agree that this is true for you?” and indicate on a five-point Likert scale from “Strongly disagree” to “Strongly agree”. From the existing scales, 19 relevant items (Table 5.13) from *price consciousness*, *price-quality consciousness*, *quality consciousness*, *brand loyalty*, and *brand familiarity* were chosen. The purpose of this pre-test was to assess how individuals understood and responded to the questions, as well as the electronic questionnaire, and test the reliability of the existing scales in the new context.

As seen in Table 5.13, Cronbach alpha’s of the pre-test indicated low internal consistency across all the constructs excluding *brand familiarity* (0.748), with *price-quality consciousness* (0.666) scoring a satisfactory reliability measure. Unexpectedly, *price*

*consciousness* (0.572) had the lowest internal consistency, despite using tested existing scales. The possible literacy challenges and cultural differences that could arise in dealing with low-income consumers, can also be attributed to poor performance of the attitudinal scales, further emphasising the need to create new measurement scales to use in this unique and under-served market segment. Furthermore, the pre-test suggested that some constructs were irrelevant and inapplicable to the experiences of the low-income market segment and needed to be adapted.

**Table 5.13: Pre-test constructs**

CONSTRUCT		CRONBACH'S ALPHA
<b>PRICE CONSCIOUSNESS</b>		
<b>PC1</b>	I compare prices of at least a few brands before I choose one.	0.572
<b>PC2</b>	It is important to me to get the best price for the products I buy.	
<b>PC3</b>	Price is the most important factor when I am choosing a brand .	
<b>PC4</b>	I always look at the price of brands when I go shopping.	
<b>BRAND LOYALTY</b>		
<b>BL1</b>	I prefer one brand of most products I buy.	0.614
<b>BL2</b>	I am willing to make an effort to search for my favourite brand.	
<b>BL3</b>	I always buy my favourite brand when I go grocery shopping.	
<b>BL4</b>	Usually, I care a lot about which particular brand I buy.	
<b>PRICE-QUALITY CONSCIOUSNESS</b>		
<b>PQ1</b>	I can usually judge the quality of a brand from its price.	0.666
<b>PQ2</b>	In my opinion, higher prices mean better quality.	
<b>PQ3</b>	In my opinion, lower prices mean lower quality.	
<b>QUALITY CONSCIOUSNESS</b>		
<b>QC1</b>	I will not give up high quality for a lower price.	0.650
<b>QC2</b>	I always buy the best that I can afford.	
<b>QC3</b>	It is important to me to buy high quality products.	
<b>QC4</b>	Better quality is better than a lower price.	
<b>QC5</b>	I buy products that are good quality.	
<b>BRAND FAMILIARITY</b>		
<b>BF1</b>	I do not like trying brands I have not heard about before.	0.748
<b>BF2</b>	I do not like trying brands I have not seen before.	
<b>BF3</b>	I do not like trying brands that are not familiar to me.	

Following from the findings of the pre-test, the construct scales were adapted and refined for the final questionnaire. The psychographic questions relating to low-income consumers' attitudes toward price and brand were reduced to *price–quality consciousness*, *brand familiarity* and *brand loyalty* (see Table 5.14). Both *brand familiarity* (0.714) and *price–quality consciousness* (0.668) had satisfactory internal reliability, and were incorporated in the descriptive analysis (see 6.3). Owing to the poor Cronbach's alpha of *brand loyalty* (0.636), this construct was excluded from further analysis. The remaining constructs and questions elicited psychographic information regarding respondents' attitudes toward the importance of brand familiarity, brand loyalty and price–quality consciousness, and allowed for greater insight into the decision-making process of low-income consumers.

**Table 5.14: Final items and constructs**

	Cronbach's alpha	If item deleted
<b>BRAND LOYALTY</b>		
BL1 I am willing to make an effort to search for my favourite brand.	<b>.636</b>	.536
BL2 I always buy my favourite brand when I go grocery shopping.		.557
BL3 Usually, I care a lot about which particular brand I buy.		.589
BL4 I have favourite brands I buy often.		.582
<b>PRICE–QUALITY CONSCIOUSNESS</b>		
PQ1 I can usually judge the quality of a brand from its price.	<b>.668</b>	.525
PQ2 In my opinion, higher prices mean better quality.		<b>.679</b>
PQ3 In my opinion, lower prices mean lower quality.		.502
<b>BRAND FAMILIARITY</b>		
BF1 I do not like trying brands I have not heard about before.	<b>0.714</b>	.640
BF2 I do not like trying brands I have not seen before.		.665
BF3 I do not like trying brands that are not familiar to me.		.571

#### 5.6.4. Usability, reliability and validity

This section outlines the empirical strategy adapted from Bernard and Seyoum (2012) that was used to test the appropriateness and effectiveness of the data collection instrument developed for the current study as detailed below.

- *Usability* referred to the extent to which the data collection instrument could be practically administered in standard surveys, and the willingness of respondents to complete the questions.
- *Reliability* referred to the extent to which the data collection instrument could be trusted to provide consistent measures of the relevant variables and concepts.
- *Validity* referred to the extent that the data collection instrument was effectively measuring only the relevant variables and concepts identified through the problem statements and derived research objectives and related hypotheses.

These three criteria for empirical integrity are addressed independently, after which the elements of the data collection instrument and fieldwork are discussed.

#### **5.10.4.1. Usability**

An electronic questionnaire was used to collect primary data. The visual depiction of the choice set created a realistic and easily understandable choice situation, thus requiring little cognitive effort from respondents, increasing their willingness to participate. The use of an electronic questionnaire, facilitated by professional fieldworkers, also increased ease of use and minimised possible administrative, fieldworker and respondent errors associated with paper surveys.

Data capturing was done automatically, minimising possible administration errors and bypassing other possible challenges associated with paper-based questionnaires. These challenges include legibility of written answers, missing paper questionnaires, facilitating screening questions and sending and retrieving of questionnaires (Fredrickson, Jones, Molgaard, Carman, Schukman, Dismuke and Ablah, 2005). Although there was a possibility that low-income consumers may be unfamiliar with this technology, cell phone penetration statistics (40% in LSM 1, 62% in LSM 2, 60% in LSM 3 and 71% in LSM 4) suggested that individuals in the target population would be capable of understanding an electronic questionnaire (SAARF, 2012). The pre-test also confirmed that respondents had no difficulty

in engaging with the electronic data collection instrument. Professional fieldworkers (see 5.8) were employed to assist respondents and guide them through the process in case there were any problems.

#### **5.10.4.2. Reliability**

As stated by Zikmund *et al.* (2010), reliability is an indicator of internal consistency. Internal consistency represents a measure's homogeneity and occurs when different attempts of measuring an object or concept converge on the same result (Churchill, 1979). The attitudinal constructs (see 5.6.2) used multiple items to measure the same concept. Cronbach's alpha, the most commonly applied estimate of a multiple-item scale's reliability, was applied to the current study's constructs, where an average of above 0.7 reflected high internal consistency and a reliable measure. As discussed, the psychographic questions were pre-tested, and then purified to exclude constructs with low internal consistency in order to ensure reliability.

Pre-testing with individuals satisfying the criteria for the target population ensured that the price points and brands chosen were realistic and appropriate. As part of the pre-testing, individuals were asked to explain the meaning of the items used in the data collection instrument to estimate levels of comprehension, and ensure the data collected was a reliable reflection of the respondents' answers and preferences. The pre-test found no problems associated with the use of the electronic questionnaire, or with the items developed.

#### **5.10.4.3. Validity**

Validity refers to the "accuracy of a measure" and can be defined into four related components, these being "statistical conclusion validity, internal validity, constructs validity and external validity" (Shadish, Cook and Campbell, 2002: 37). Statistical conclusion validity refers to the appropriate use of statistics to infer the covariance of the relevant variables. Internal validity indicates that the co-variation of the variables resulted from a causal

relationship. Lastly, construct and external validity refers to the generalisations. Construct validity consists of several components, and “exists when a measure reliably measures and truthfully represents a unique concept” establishing the “accuracy with which the experimental results can be generalised beyond the experimental subjects” and context (Zikmund *et al.*, 2010: 277). External validity indicates that the “validity of inferences about whether the cause–effect relationship holds over variation in persons, settings, treatment variables, and measurement variables” (Shadish *et al.*, 2002: 38).

Other relevant threats to the internal experimental validity of the current study included the history, maturation, and instrumentation effects that can influence the causal outcome of the experiment (Zikmund *et al.*, 2010). Firstly, the history effect occurs when some change other than the experimental treatment occurs during the course of an experiment, which affects the dependent variable. Drastic price changes in the maize meal category during course of the planning and executing of the current study could have caused such an error, however the price of maize meal was monitored over the months leading up to the planned and fieldwork, revealing stable trends. Secondly, maturation effects can occur over time and are a result of naturally occurring events that coincide with growth and experience (Zikmund *et al.*, 2010). Longitudinal studies that commence over time are particularly susceptible to maturation effects and subsequently risk lower internal validity. However, owing to the cross-sectional approach of the current study, the likelihood of maturation occurring was limited. Thirdly, the instrumentation effect occurs through changes in the wording of questions, procedures of the interviews and differences between interviewers, again potentially jeopardising internal validity. The current study addressed the instrumentation effect through the research design, as well as in the fieldwork element of the research process. The research design employed a CBC that minimised the number of questions needed to elicit the required data to satisfy the research objectives. During the data collection of the current study, professional fieldworkers with experienced supervisors were hired to ensure uniform and consistent interview procedures, minimising the possibility of the maturation effect.



Extraneous variables are not controlled by the researcher and refer to “variables that naturally exist in the environment that may have some systematic effect on the dependent variable” (Zikmund *et al.*, 2010: 266). Extraneous variables such as culture and changes in interviewers or procedures can influence the reliability of research and thus were considered carefully. These were avoided by accounting for the potential effects of socio-cultural factors on consumer buying-decision behaviour, and by using professional fieldworkers. The selection effect may also occur if interviewers are biased toward differential selection of respondents for experimental groups. Clear instructions to fieldworkers and supervision minimised the risk of this threat.

## **5.7. SAMPLING DESIGN**

The next step in the marketing research process (Figure 5.2) calls for the sampling design to be developed in order to select the unit of analysis, as identified in the problem statement. Sampling is the process of selecting a sample or subset of a larger population that will be used to represent and reflect the ideas, behaviour and attitudes of the population (Kotler and Keller, 2009). Unlike a census that is defined as “an accounting of the entire population”, sampling is necessary in research when measuring every item in a population is impossible, impractical or too expensive, as is the case for the current study (Tustin *et al.*, 2005:337). Advantages of sampling further support its use over census, including the cost and time advantage, confidentiality of research, and the avoidance of destruction of population members through contacting each unit in the population (Zikmund *et al.*, 2010: 387). As outlined by Miller and Salkind (2002), the goal of sampling is to select a sample where the sampling error (difference between sample and population characteristics) is minimised.

Establishing the sampling design includes “defining the sample population, specifying the appropriate sample frame, selecting a sampling method, determining the sample size and finally drawing the sample” (Tustin *et al.*, 2005: 336). This process provided the foundation for the fieldwork element of the research study to be determined and conducted. The practical

decisions guiding the sample design of the current study are summarised in Table 5.12 (as shown in Table 1.3), and discussed in the following sections.

**Table 5.15: Sampling design**

STEPS	PRACTICAL IMPLICATIONS
<b>Identify the target population</b>	<ul style="list-style-type: none"> <li>• Living in South Africa</li> <li>• Black female</li> <li>• &lt;18 years of age</li> <li>• LSM 1-4</li> <li>• Purchases maize meal</li> </ul>
<b>Determine the sampling method</b>	<ul style="list-style-type: none"> <li>• Non-probability method: <ul style="list-style-type: none"> <li>• Judgement sampling</li> </ul> </li> </ul>
<b>Establish the sample size</b>	<ul style="list-style-type: none"> <li>• 200 respondents</li> </ul>
<b>Draw the sample</b>	<ul style="list-style-type: none"> <li>• Surrounding areas of Johannesburg were chosen, namely Vosloorus, Winnie Mandela, Mandela Evaton North, Evaton Red Cross, Boipatong, Sharpeville, Sebonkeng Ext 2 and Orange Farm in Gauteng.</li> <li>• Individuals in these areas were identified according to set criteria.</li> </ul>
<b>Conduct fieldwork</b>	<ul style="list-style-type: none"> <li>• Interviewer-assisted electronic questionnaires</li> </ul>

#### 5.7.1. Target population

The target population for the current study was any female who: was over the age of 18 years, lived in South Africa and fell into the LSM 1–4 categories (Living Standards Measures) as outlined by the All Media and Products Survey, was classified as “black” in race (excluding Asian, Indian and Coloured ethnicities), did the majority of her shopping in the urban areas, and purchased maize meal as part of her grocery shopping.

The LSM categories, an established and popular means of segmenting the South African population into socio-economic strata, were used to target individuals falling into the BOP market, thereby excluding those in higher income brackets (Ungerer and Joubert, 2011). The age specification targeted young and mature adults, excluding young children from the study. Women were targeted as they generally represent the primary decision-maker in the household, and constitute over 50 per cent of both LSM 1 and LSM 2 categories. With over

95 per cent of LSM 1–4 reported to be part of the black population group, this was the chosen ethnicity for the study. By excluding Indian, Coloured and Asian individuals, the effect of different cultures on the responses, as well as differing product and brand preference, was also minimised (SAARF, 2012).

Ultimately, it was necessary to delineate this specific target population in order to achieve reliable results, albeit in a restricted target population. Urban areas were also chosen in view of Ireland's (2008) research (see Chapter 4) that identified the urban poor, or individuals who do the majority of their shopping in urban areas, as a more viable market for private firms to achieve profitability and engage in socio-economic upliftment, making them appropriate for the purpose of the study.

#### **5.7.2. Sampling method**

Dealing with a largely fragmented and informal target population, and with no sampling frame, that is a comprehensive list of all the sample units in the population available, a non-probability sampling method was used (Zikmund *et al.*, 2010: 395). In order to identify an appropriate area from which to draw the sample and conduct fieldwork, the consumption of maize meal (percentage most bought) was considered (see Table 5.13). Peoples' preference (percentage most bought) for maize meal according to brand was compared across different areas of South Africa, namely Gauteng, greater Johannesburg (JHB) and Soweto, Western Cape, KwaZulu-Natal and Limpopo. Statistics indicated that people in Gauteng showed the greatest preference for *Ace* (29.1%), *Iwisa* (14%) and *White Star* (17.7%) compared to other provinces in South Africa (SAARF, 2012). Furthermore, in greater JHB and Soweto, people were found to have the highest preference for *Ace* (34.6%) followed by *White Star* (18.8%) and *Iwisa* (10.6%). The significant preference for the three national brands incorporated in the CBC (see 5.5.2.3), as well as the prevalence of people satisfying the criteria outlined in the target population suggested these areas were appropriate for the sample to be drawn.

**Table 5.16: Maize meal consumption across areas**

<i>Most bought (%)</i>	<b>Gauteng</b>	<b>Greater JHB and Soweto</b>	<b>Western Cape</b>	<b>KwaZulu-Natal</b>	<b>Limpopo</b>
<b>ACE</b>	<b>29.1</b>	<b>34.6</b>	<b>5.9</b>	<b>23.5</b>	<b>19.9</b>
<b>TRADITIONAL COARSE BRAAI PAP</b>	2.9	1.3	1.3	0.5	1.5
<b>IMPALA MAIZE MEAL</b>	2.1	0.6	10.7	3.4	3.5
<b>INDUNA</b>	1	0.6	0.0	2.0	3.6
<b>IWISA</b>	<b>14</b>	<b>10.6</b>	<b>8.8</b>	<b>4.8</b>	<b>15.0</b>
<b>NYALA</b>	0.3	0.4	0.1	19.1	0.5
<b>PAPA</b>	3.2	3.6	0.1	0.7	1.9
<b>WHITE STAR</b>	<b>17.7</b>	<b>18.3</b>	<b>11.8</b>	<b>18.8</b>	<b>13.5</b>
<b>HOUSE BRANDS</b>	<b>1.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.6</b>	<b>5.1</b>
<b>ANOTHER BRAND</b>	<b>4.5</b>	<b>1</b>	<b>0.4</b>	<b>2.5</b>	<b>21.8</b>
<b>NO BRAND</b>	0.7	0.4	.07	0.1	1.3

Judgement sampling was further used to identify specific informal settlements in Gauteng (where 76% of individuals reported having bought maize meal), namely Vosloorus, Winnie Mandela, Mandela Evaton North, Evaton Red Cross, Boipatong, Sharpeville, Sebonkeng Extension 2 and Orange Farm, where professional fieldworkers conducted interviewer-administered electronic questionnaires in respondents' homes and at taxi ranks in the areas.

### **5.7.3. Sample size**

The sample size of any research study has a significant effect on the reliability and accuracy of the data collected (Zikmund *et al.*, 2010). In order to minimise random sampling error, the optimal sample size needed to be calculated (Miller and Salkind, 2002). For the current study, the question of sample size was addressed largely by the conjoint design. The CBC employs a fractional factorial on a respondent level, ultimately minimising the sample size necessary to maintain the reliability and validity of the data, while imitating a full factorial in the data collected from respondents. Owing to limitations of time and resources, the sample size was set at 200 respondents drawn from the appropriate target population. The chosen sample size was large enough to collect sufficient data to analyse, interpret and draw reliable conclusions

and inferences from the target population, while still remaining practical for the researcher. Overall, 303 respondents were approached, with 209 questionnaires being successfully completed.

#### **5.7.4. Drawing the sample**

Selecting and making contact with individual sampling units was done through fieldwork. Fieldworkers were briefed on the criteria outlined in the target population, in order to identify individuals who fell into this group. As mentioned, fieldworkers were sent to informal settlements of Vosloorus, Winnie Mandela, Mandela Evaton North, Evaton Red Cross, Boipatong, Sharpeville, Sebonkeng Extension 2 and Orange Farm. The data collection instrument set out the script that guided the interview and the recording of the responses through fieldwork, discussed in the following section.

### **5.8. DATA COLLECTION AND FIELDWORK**

Primary data was collected via fieldwork. Professional fieldworkers approached appropriate subjects in informal settlements, asked a series of questions (see 5.6) and recorded the interviews on an electronic measurement instrument. Fieldworkers began the questionnaire by recording their name, questionnaire number, and the device with which they were using to conduct the electronic questionnaire. The name and questionnaire number allowed for supervisors to monitor fieldworkers' progress, while any possible bias relating to the type of device used to conduct the questionnaire was tested and excluded. Fieldworkers introduced themselves and gained consent from respondents to participate in the survey.

Personal interviews allowed for interactive communication between fieldworkers and subjects by engaging in conversation (Zikmund *et al.*, 2010). This is a “versatile and flexible” method that facilitates two-way conversation between the interviewer and respondent (Zikmund *et al.*, 2010: 209).

**Table 5.17: Interview introduction**

Questions	Available options
<b>Interviewer</b>	<i>Open-ended</i>
<b>Questionnaire number</b>	<i>0- 200</i>
<b>What device are you using to conduct the questionnaire?</b>	Laptop computer Desktop computer Ipad/Tablet Smartphone Other: Please specify

As mentioned in Chapter 1, this type of data collection was effective both in dealing with reluctant individuals (interviewers could reassure them of the confidentiality of their responses) and in minimising the chance that subjects would misinterpret the questions. This also helped to avoid item-non-response error. Dealing with a target population with possibly limited literacy skills further justified the use of personal interviews for collecting primary data. Interviewers were able to offer clarity and further instructions regarding questions, and use visual stimuli (see 5.5.2.4) to enhance understanding and encourage participation. Furthermore, facilitated by interviewers who could speak both English and Sotho or Zulu, respondents were able to ask in their own language the meaning of each question. Using English as the primary language of the questionnaire ensured consistency, while professional fieldworkers could assist respondents in their preferred language.

Key disadvantages of personal interviews were considered, thereby identifying the potential bias that may have occurred during fieldwork. These include possible negative effects of the interviewer's demographic characteristics as well as the effect of different interviewer techniques which individual fieldworkers employ. Gender, race, tone of voice and the appearance of an interviewer all may influence the subject's willingness to participate and respond to the measurement items (Zikmund *et al.*, 2010: 211). Curb-stoning, another risk associated with this form of data collection, occurs when interviewers deliberately falsify questionnaires, negatively affecting the integrity of the data. These areas of potential bias were minimised by employing professional fieldworkers to conduct fieldwork under supervision.

The sample quota was divided across two areas in the east and south of Gauteng. Supervisors oversaw the project and were responsible for briefing the fieldworkers on the nature of the project, ensuring they received the link to the data collection instrument, and outlining the appropriate behaviour when conducting interviews. Laptops, smartphones and tablets were used to run the electronic questionnaire.

The first area focused on the eastern side of Gauteng in the suburbs of Boksburg, Brakpan and Kempton Park. Fieldworkers worked in the informal settlements of Vosloorus, Winnie Mandela and Mandela. After establishing a central meeting point in a local house, they recruited respondents and conducted interviews. The second area focused on the southern part of Gauteng between Johannesburg and Vanderbijlpark. Informal settlements of Evaton North, Evaton Red Cross, Boipatong, Sharpeville, Sebonkeng Extension 2 and Orange Farm were visited by fieldworkers who also interviewed respondents in their homes or at a taxi rank in the areas. These two areas were chosen according to judgement sampling considering the strict income and demographical parameters set in establishing the target population, and this ensured that an accurate and realistic sample was drawn.

## **5.9. DATA ANALYSIS**

Data analysis is the sixth element in the marketing research process (see Figure 5.2), and began with the editing and coding of the primary data collected via fieldwork. Descriptive statistics allowed for “elementary transformation of raw data in a way that described the basic characteristics such as central tendency, distribution and variability” (Zikmund *et al.*, 2010: 486). Inferential statistics allowed for hypothesis testing whereby inferences were made regarding the general population. These hypotheses were formulated according to the research objectives. Reliability and validity are essential to ensure that accurate and relevant generalisations are made, these are addressed at the end of this section. The results of the data analysis are discussed in Chapter 7.

Haaijer and Wedel (2003) identify several marketing questions that can be answered through the analysis of the observed data of CBC experiments. As discussed, CBC allows researchers to determine the relative importance of attributes and levels, the overall utility of specific profiles, and to identify individual differences. The analysis and interpretation of consumer preference values is done conjointly, rather than examining the variables independently. According to Bakken and Frazier (2006), the conjoint utilities are the fundamental output of a conjoint analysis, followed by attribute importance and the ability to produce market simulations. Each of these three outputs was addressed in the data analysis of the raw primary data discussed in Chapter 6.

#### **5.9.1. Editing and coding**

As discussed by Smith and Albaum (2006), from a managerial perspective, data can be viewed as recorded information useful for making decisions. However, before the complete meanings and implications of the collected data can be understood, completed questionnaires or other measurement instruments must be edited, coded and entered into a data set for processing by computer.

In the case of the current study, primary data were collected via electronic questionnaires through fieldwork. Professional fieldworkers interviewed 303 individuals fitting the description outlined in the target population. The raw data from the 303 interviews was then edited. Editing refers to the process of checking the completeness, consistency, and legibility of data and deals with possible non-response error and administrative errors made by fieldworkers during the completion of the questionnaires (Kotler and Keller, 2009). Non-response error was identified through the editing process, where some interviews were not completed. The incomplete data were excluded, leaving 209 completed questionnaires to be analysed.

The use of an electronic data collection instrument avoided the potential problems of legibility and incompleteness and allowed for data to be immediately captured. Item non-



response was largely avoided by including forced choice options in the data collection instrument. Coding was done by assigning numerical scores to reflect each item on the questionnaire. This coding process allowed the information elicited from the subjects to be translated into useable data, then exported to the statistical programme IBM SPSS 20.0

### **5.9.2. Descriptive statistics**

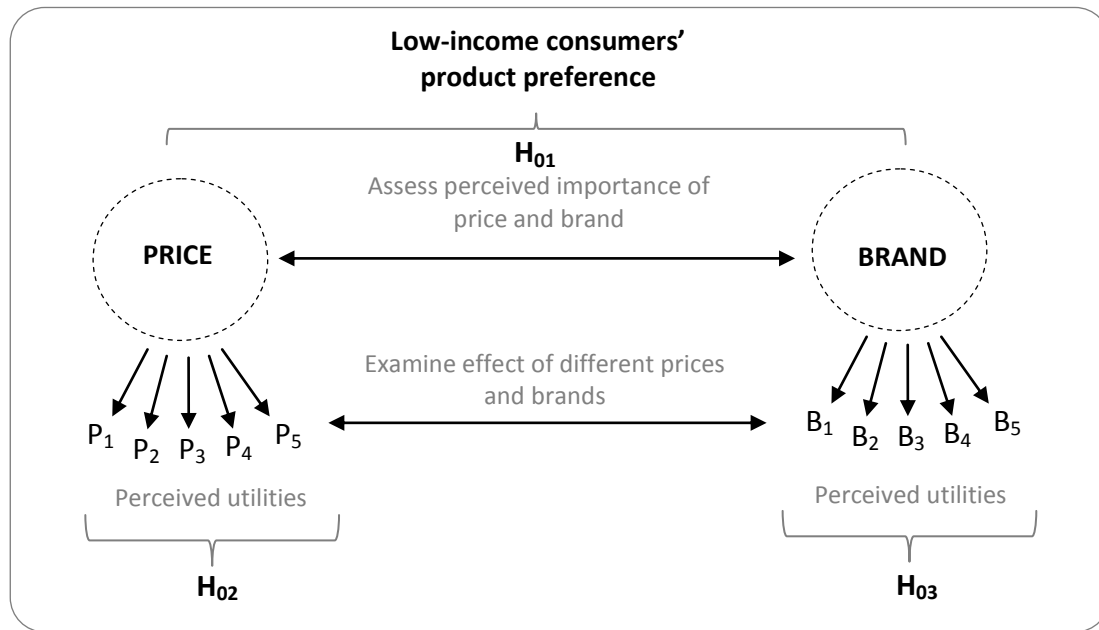
The data analysis began with descriptive statistics to identify the basic characteristics of the realised sample (Kotler and Keller, 2009). In addition to the central choice experiment questions, respondents were asked to provide demographic information including age, income, education, occupation and that related to LSM criteria, as well as psychographic information regarding their attitudes toward brands and prices. Frequency tables within and between price and brand attributes show respondents' preferences at each respective level. This information was used to validate the sample, and understand and interpret the results of the inferential statistics.

### **5.9.3. Inferential statistics**

Empirical testing using inferential statistics was used to address the research objectives. This allowed for inferences to be drawn about the target population based on observations of the realised sample, and recommendations to be extrapolated. Inferential statistics were used in the model estimation of the choice-based conjoint (Zikmund *et. al.*, 2010, Grover and Vriens, 2006).

As discussed in Chapter 1, the research objectives were stated as follows:

- To assess the importance of price and brand on low-income consumers' decision-making process.
- To examine the effect of different prices (R18.99, R24.99, R28.99, R33.99, R42.99) and brands (*Ace, White Star, Iwisa, Mnandi, Ritebrand*) on low-income consumers' product preference.



**Figure 5.8: Research objectives and hypotheses**

The inferential analysis was guided by the design of the choice-based conjoint. Conjoint analysis is classified as a multivariate statistical technique that allows multiple variables to be analysed. Furthermore, following the basic classification of multivariate methods, conjoint analysis is a non-metric dependence method that explains or predicts one or more dependent variables (Zikmund *et al.*, 2010). In line with the multivariate classification of conjoint analysis, the state-of-the-art hierarchical Bayes analysis (using the statistical programme R) was used to determine the respondents' utilities attached to each attribute at each level, followed by the MNL that calculated the likelihood of each element being chosen. These statistical tools are now discussed in greater detail.

The *state-of-the-art hierarchical Bayes procedure*, built upon the assumption that respondents' preferences are linked by a common multivariate distribution, was used as the estimation procedure. The hierarchical Bayes procedure was chosen as it considers heterogeneity in terms of individual-level differences in brand preferences and price sensitivity, unlike other procedures, such as aggregate-level maximum likelihood estimation, that do not (Eggers and Sattler, 2011). The Bayes analysis was run through the statistical programme R using the "BayesM" package, after which the results were exported to Excel.

As mentioned, the output produced individual-level utilities associated with each attribute at each level respectively, inferred from the *most liked* and *least liked* alternatives respondents indicated in the six choice sets shown in the data collection instrument (see 5.5.2.3). These utilities reflect a continuous relative measure of preference for each of the attributes at each level, where higher values indicate greater utility and preference.

Although the Bayes analysis produced independent utilities associated with the attributes at each level, it was unable to measure the inter-dependent effect of *price* and *brand* at different levels on respondents' product preference, in the form of purchase probabilities. Deriving from utility maximisation, the MNL is able to estimate the individual-level results from the CBC experiments. The *MNL model* is the most frequently used model to analyse such conjoint choice experiments, and was thus employed for inferential analysis of the collected primary data (Haaizer and Wedel, 2003). The model formula, as stated below, is used to predict purchase probabilities:

$$p(i|J) = \exp(bx_i) / \sum_j \exp(bx_j)$$

Simulations of different combinations of attributes and levels (sets of *price* and *brand* alternatives) were created predicting the respondents' purchase probabilities, and investigating the effect of each attribute and level, and combination thereof, on consumers' product preference.

In summary, the Bayes analysis and MNL model produced continuous data measuring respondents' utilities and purchase probabilities, which was used in the testing of the various research hypotheses. Hypotheses are defined as formal statements of explanations in a testable form, and facilitate the empirical testing element of the current study (Zikmund *et al.*, 2010). Developed as relational hypotheses (that examine how changes in one variable vary with changes in another), or hypotheses about differences between groups (examines how one variable differs from one group another), research hypotheses allow the researcher's educated guess to be tested in comparison with empirical reality (primary data). In the case of the

current study, outlined in Table 5.15, both relational hypotheses and hypotheses about differences were formulated in line with the research objectives (Figure 5.8) and were addressed using various inferential tests.

**Table 5.18: Research objectives and hypotheses**

HYPOTHESIS	INFERENTIAL TEST
<b>OBJECTIVE 1:</b> To measure the importance of price and brand on low-income consumers' decision-making process.	
H <sub>01</sub> : There is no difference in low-income consumers' perceived importance of <i>price</i> and <i>brand</i> in their decision-making process	Independent sample t-test
<b>OBJECTIVE 2:</b> To assess the effect of different prices ( <i>R18.99, R24.99, R28.99, R33.99, R42.99</i> ) and brands ( <i>Ace, White Star, Iwisa, Mnandi, Ritebrand</i> ) on low-income consumers' product preference.	
H <sub>02</sub> : There is no difference in <i>utilities</i> between brands ( <i>Ace, White Star, Iwisa, Mnandi, Ritebrand</i> )	Two-way repeated measures ANOVA
H <sub>03</sub> : There is no difference in <i>utilities</i> between price ( <i>R18.99, R24.99, R28.99, R33.99, R42.99</i> )	Two-way repeated measures ANOVA

H<sub>01</sub> addressed the respondents' perceived importance of each attribute, while, H<sub>02</sub> and H<sub>03</sub> addressed the effect of different prices and brands on low-income consumers' product preference. The tests associated with each hypothesis are outlined briefly:

#### 5.9.3.1. Independent sample t-test

T-tests are used to test for significant differences between means of two groups of respondents on some attitude or behaviour, and require ratio or interval data (Hair *et al.*, 2007). The independent sample t-test is one type of t-test and determines whether the mean of a sample differs significantly from that of a given standard (Cramer and Howitt, 2004). In the case of H<sub>01</sub>, the independent sample t-test was used to test for significant differences between

the means of the perceived importance of *price* and *brand*, thereby assessing the perceived importance of each attribute. The statistical programme SPSS was used to run this test.

#### **5.9.3.2. Two-way repeated measures ANOVA**

As discussed by Hair *et al.* (2007: 343) “ANOVA is used to assess the statistical differences between the means of two or more groups”. A two-way ANOVA is used when there are two variables to be tested (in this case, utilities of *price* and *brand*) across multiple groups (in this case, five different prices and brands). In this way, two-way interaction effects are also tested in order to establish possible significant differences between different levels of price and brand respectively. Unlike the t-test, ANOVA uses the F-test to examine differences between the group means. Following the design of the CBC (see 5.5.2), a repeated measures ANOVA was used as respondents evaluated different prices and brands successively. The statistical programme STATISTICA was used to run this test.

### **5.10. ETHICAL CONSIDERATIONS**

As discussed in Chapter 1, the current research study was classified as holding low risk for potential subjects. In line with the framework provided by the University of Stellenbosch, “the probability or magnitude of harm or discomfort anticipated in the research is not greater in itself than that ordinarily encountered in daily life”. The targeting of low-income consumers, however, did require a sensitive approach by fieldworkers and researchers to ensure that individuals did not feel any form of embarrassment or discomfort in light of their socio-economic status.

### **5.11. CONCLUSION**

The current study employed the scientific method with the marketing research process (Figure 5.2) to contribute to closing the gap in understanding consumer behaviour and decision-buying process surrounding the low-income market segment. Secondary research followed a review of literature building a foundation for the research opportunity to be

defined in the problem statement. The research objectives formulated the relevant concepts and propositions underpinning this study, and guided the development of the research method that focused on the collection of primary research.

The results of this primary qualitative research determined *5kg Super Maize Meal* to be the most appropriate product category (over whole frozen/fresh chickens, rice, and canned fish which were also considered), with *Ace*, *White Star*, *Iwisa* and additional hypothetical brands being the most appropriate brand choices. These findings were incorporated into the primary quantitative research design through the CBC.

A CBC and its related questionnaire was conducted over a three-week period in 2013. A total of 303 respondents, resulting in 209 completed questionnaires, were approached by fieldworkers in informal settlements in Gauteng and assisted with an electronic questionnaire. The current study used a 5 (price presentation: 25% lower, lowest, average, highest, 25% higher) \* 5 (Brand presentation: *Ace*, *Iwisa*, *White Star*, *Mnandi*, *Ritebrand*) within-subjects design in the maize meal product category. Data collection was followed by data analysis and presentation of results seen in Chapter 6. Interpretation of the results and the formulation of managerial recommendations conclude the research process and are discussed in Chapter 7.

## CHAPTER 6 | RESULTS

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### 6.1. INTRODUCTION

This study was undertaken to assess the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examine the effect of different prices and brands on low-income consumers' product preference. The previous chapter outlined the research method that facilitated the collection of secondary and primary qualitative and quantitative data. Although secondary data (Chapters 2, 3 and 4) was useful in giving insights into the decision-buying behaviour of low-income consumers, it was unable to provide relevant and reliable information to adequately address the problem statement and associated research objectives. Primary research was thus collected by qualitative research via interviews with and observation of leading retailers. These techniques guided the quantitative research conducted through a CBC analysis. This section analyses the data in light of the statistical hypotheses derived from these objectives, reporting the results of the primary data collection of this study. Descriptive and inferential analysis of the primary data provided the foundations for the conclusions and recommendations to be formulated in the Chapter 7.

### 6.2. REALISED SAMPLE

The realised sample is discussed in view of key demographic factors that may influence the decision-making process and product preference of low-income consumers. Demographic information regarding age, education level, income level, language and occupation, as well as psychographic information regarding respondents' attitudes toward the importance of brand familiarity, price consciousness and price-quality consciousness, build a profile of the respondents, providing insight into the behaviour and decision-buying processes of the market segment. The realised sample was also compared to the criteria outlined in the target population (see 5.7.1) to ensure the respondents were chosen appropriately.

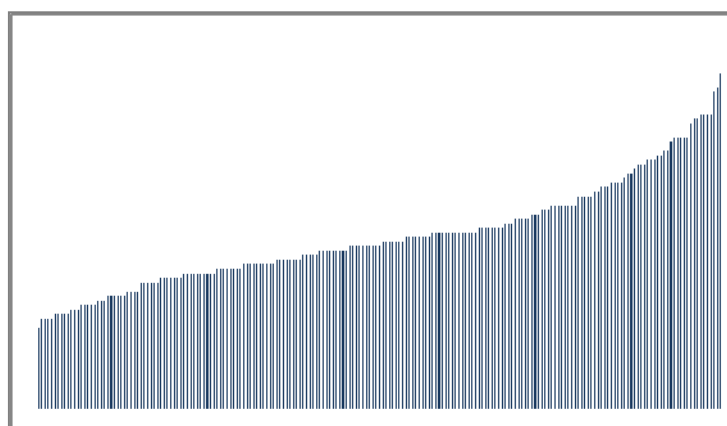
### 6.2.1. Basic demographic information

As discussed in Chapter 5, the target population for this study was black women living in South Africa, above the age of 18 years, who fall into the LSM categories 1–4, and do the majority of their shopping in urban areas. These criteria were met through fieldwork conducted in informal settlements in areas surrounding Johannesburg, Gauteng. Women were identified as the primary domestic decision-makers in the family and as those who were most familiar with brands in the maize meal category, while constituting over 50% of both LSM 1 and LSM 2 categories (SAARF, 2013). Delineating the target population by these criteria also limited the possible effects of extraneous factors or differences arising from gender while allowing for the results and conclusions to be more applicable to the target population.

The realised sample (Table 6.1) had an average age of 38 years of age, with a median of 36 years of age, a maximum of 74 years of age and minimum of 18 years of age. The distribution (Figure 6.1) of age crosses a broad spectrum while satisfying criteria of the target population (see 5.7.1).

**Table 6.1: Age distribution (n= 209)**

Minimum	Maximum	Mean	Median
18	74	38	36

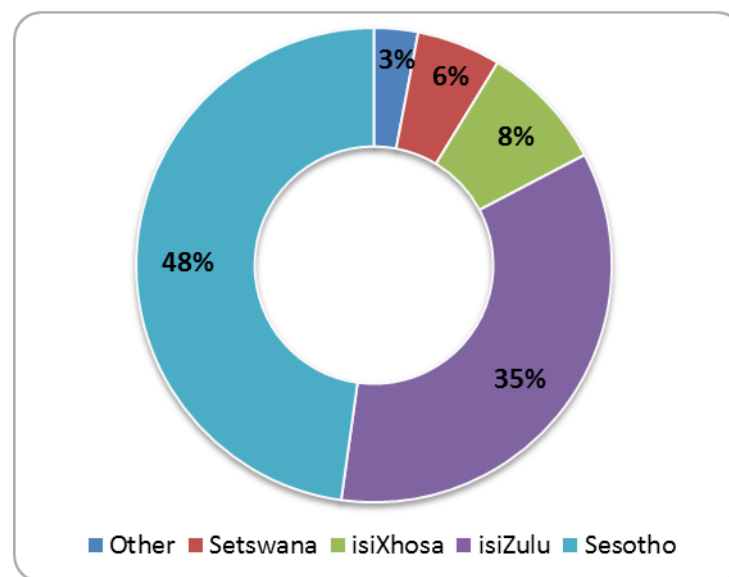


**Figure 6.1: Age distribution (n=209)**



### 6.2.2. Home language

As illustrated in Figure 6.2, all of the realised sample indicated an African language as their home language, with Sesotho (48%) and isiZulu (35%) dominating, while isiXhosa (7%), Setswana (6%) and isiNdebele represented minor segments of the realised sample. The distribution of home languages is in accordance with data provided by SAARF (2013), and supports the employment of professional, multilingual fieldworkers to conduct assisted interviews that were standardised in English.



**Figure 6.2: Distribution of language (n=209)**

Language, related to culture (see 2.2.1) and associated cognitive understanding, is an intrinsic part of decision-making processes and thus may have an effect on how brand and price are perceived (Kotler and Keller, 2009). The possible effects of language, beyond the scope of the current study, were suggested as areas of future research (see 7.6).

### 6.2.3. LSM distribution

For the purpose of this study, low-income consumers were delineated by the LSM categories 1–4 as established by SAARF (2013) (Ungerer and Joubert, 2011). Questions regarding household appliances and facilities that are used to define these levels were included in the questionnaire to ensure that all the respondents fell into these categories. Not directly related to income, these levels revealed a lifestyle with limited access to a microwave, refrigerator/freezer, washing machine, tumble dryer, home telephone, home computer, TV set, hot running water, car and credit facilities – mirroring the profile of low-income consumers discussed in Chapter 4. The sum of the available items in each household reflects the LSM category into which the household falls. Illustrated in Figure 6.3, and in line with the target population, 40 per cent of respondents were categorised as LSM 1, and 28 per cent were categorised as LSM 2, while 23 per cent were categorised as LSM 3, and 9 per cent were categorised as LSM 4.

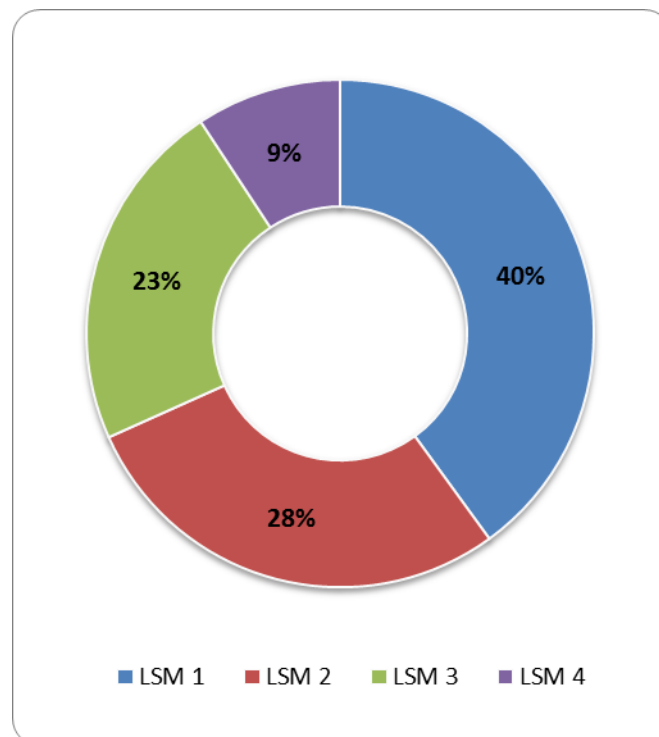
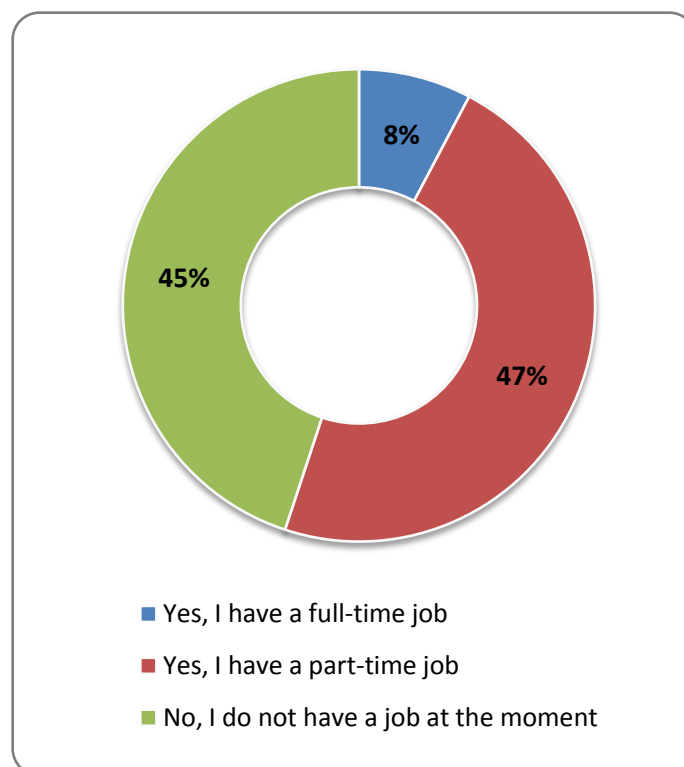


Figure 6.3: LSM categories (n=209)

#### 6.2.4. Employment and household income

The review of literature in Chapter 2 surrounding consumer behaviour identified employment and income as possible factors affecting consumer decision-making and individuals' perceptions of risk. In Chapter 3, the level of income was associated with consumers' tendencies to be price-sensitive, suggesting its possible relevance to perceived importance and effect of price and brand on low-income consumers' preference. With these in mind, the employment status and household income of the realised sample is examined.

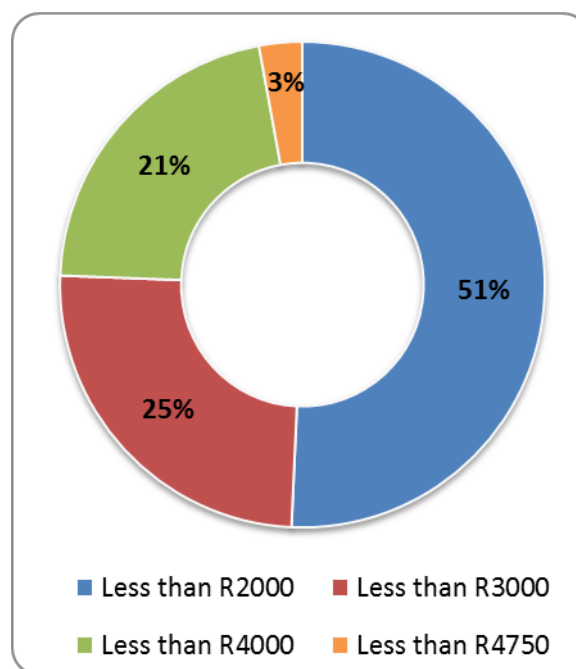
Only a small portion (8%) of the realised sample in Figure 6.4 indicated that they had a full-time job, suggesting low-income security and limited disposable income. The majority of the realised sample (47%) indicated that they had a part-time job, with the remainder (44%) indicating that they did not have a job. The prevalence of part-time employment and unemployment of the realised sample was expected in light of national statistics showing that over a third (36.7%) of the working population are unemployed, with the majority of those individuals falling below LSM 5 (Statistics South Africa, 2013).



**Figure 6.4: Employment status (n= 209)**

Employment status and household income of the realised sample reveal some of the sources of income to which individuals in this market segment have access. The distribution of household income among the respondents provides more specific information regarding the income level of the realised sample and their buying power.

Building on the LSM categories, this metric categorises respondents according to monthly household income. Household income was chosen over individual income in order to accommodate the prevalence of social grants and other state assistance to individuals, which is then shared among the members of the family (Corder and Chip, 2012). This approach recognises that even individuals without employment or stable income do have access to limited disposable income, and therefore do make purchase decisions (Guesalaga & Marshall, 2008: 414). Figure 6.5 shows over 50 per cent of the realised sample indicating that their household income is less than R2000 per month, 25 per cent indicating their household income is less than R3000, 21 per cent indicating their household income is less than R4000, and only 3 per cent indicating their household income is less than R4750 per month.



**Figure 6.5: Income distribution (n=209)**

According to the classification established by Corder and Chipps (2012) of the low-income market segment in South Africa, the *foundation* segment includes individuals who have an average household income of R1312 per month. The realised sample is shown to be appropriate, satisfying the criteria outlined in the target population as stipulated for the purpose of the study.

The distribution of employment and income across the realised sample can suggest that households have little access to stable income, putting pressure on disposable income and increasing risk of purchases, even those in low-involvement FMCG, such as in the maize meal category. Price then, may be a crucial point of parity in the decision-buying process of individuals in this socio-economic segment, becoming a key differentiating factor between available products.

#### 6.2.5. Education level

The distribution of the level of education of the realised sample, as illustrated in Figure 6.6, established a minimum level of education as less than Grade 7 (4%) and a maximum of post-matric (5%). Over half of the realised sample had completed Grade 11 (26%) or Grade 12 (28%), with 21 per cent having completed Grade 10, and the remainder having achieved less than Grade 9.

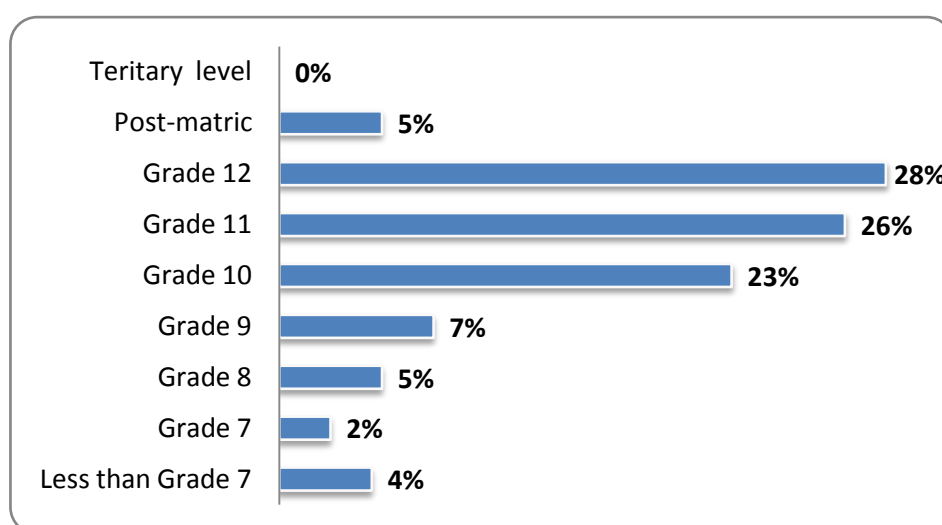


Figure 6.6: Education level (n=209)

The tendencies established in the realised sample are supported by the data provided by SAARF (2013) regarding education levels in the low-income market segment, and highlight possible literacy-related limitations and challenges that respondents may face.

The descriptive analysis of the realised sample provided information that satisfied the criteria of the target population (see 5.7.1) ensuring the appropriate respondents were selected. The information also builds a profile of basic demographic information, home language, employment and household income, and education level. This profile was considered in descriptive analysis and inferential analysis of the choice-based conjoint, discussed as follows.

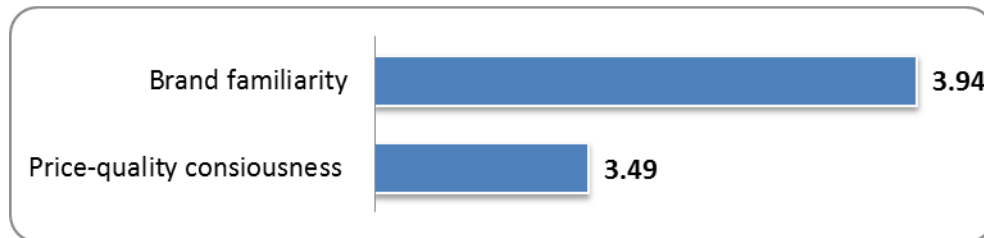
### **6.3. DESCRIPTIVE ANALYSIS**

Descriptive analysis of the data reveals the trends and frequencies of perceived importance, and product choice within the realised sample, building upon the examination of the realised sample. Psychographic information sheds light on respondents' attitudes toward brand familiarity, brand loyalty and price–quality consciousness, while the general buying behaviour of respondents (including purchase frequency, brand preference and store preference) is also discussed.

#### **6.3.1. Psychographic information**

In support of the purpose of the current study to assess the role of price and brand on low-income consumers' decision-making, respondents' attitudes toward brand familiarity and price–quality consciousness were explored. Shown in Figure 6.7, both brand familiarity and price–quality consciousness showed high mean scores (3.94 and 3.49 respectively), suggesting that respondents do value brands they know and recognise, and that price is a strong indicator of quality for people in this market segment. These findings support the challenge of D'Andrea *et al.* (2006) to the myths that low-income consumers are wholly price-sensitive, overwhelmingly attracted to low shelf prices and to areas where the lowest

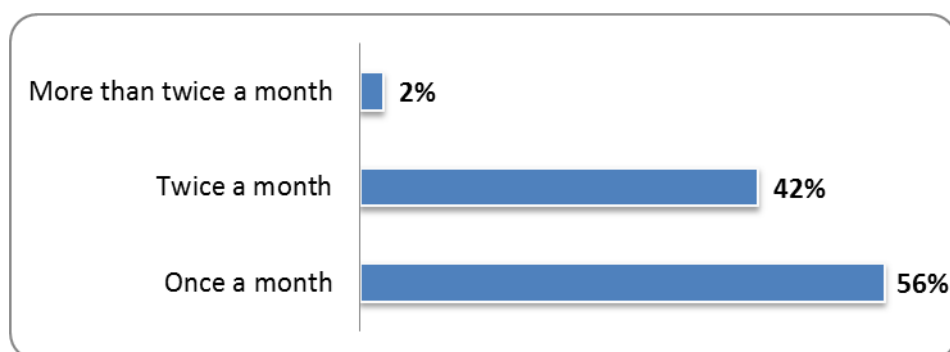
price prevails. This suggests that people categorised in the BOP employ more complex decision-making processes, based on the trade-off of various cues including price and brand. These implications were explored in the inferential analysis of the primary data.



**Figure 6.7: Psychographic information**

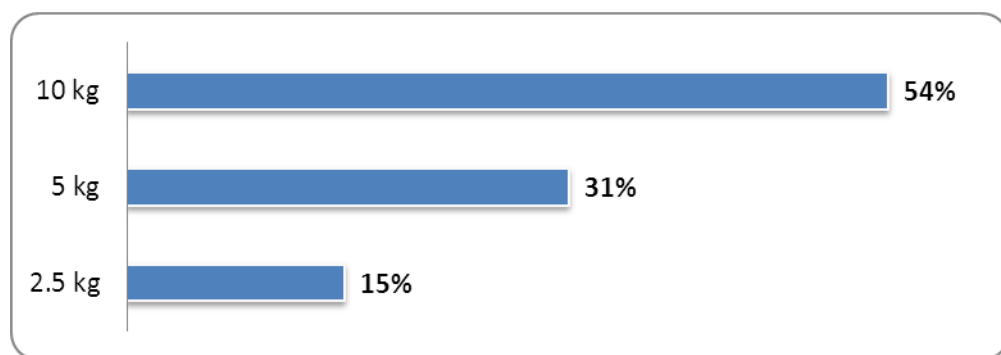
### 6.3.2. Purchase frequency

Purchase frequency of maize meal of the realised sample was recorded to contextualise the CBC. The majority of the realised sample (56%) shown in Figure 6.8 indicated that they purchase maize meal once a month, followed by 42 per cent indicating twice a month. Less than 3 per cent of the realised sample indicated that they purchase maize meal more than three times a month, suggesting that maize meal is not a convenience good purchased often. Drawing on theory relating to consumer involvement in decision-making (see 2.3.3), the infrequency of purchases of maize meal among the realised sample could also suggest that there is a relatively higher level of involvement in the purchase decision, than for similar products in FMCG categories in higher-income market segments.



**Figure 6.8: Purchase frequency (n=209)**

In terms of the package size usually bought (Figure 6.9), 54 per cent of the realised sample indicated 10kg package sizes, with 31 per cent and 15 per cent indicating 5kg and 2.5kg package size respectively. The large package size correlates to the tendency for the realised sample to buy once or twice a month as discussed above, and supported by the research of D’Haese and Huylenbroeck (2005) that suggested low-income households will buy maize in bulk, at lower prices. With over a third of the realised sample indicating that they usually purchase 5kg, the product choice used in the choice-based conjoint reflects a realistic and appropriate option, which was familiar to the realised sample.



**Figure 6.9: Package size usually bought (n= 209)**

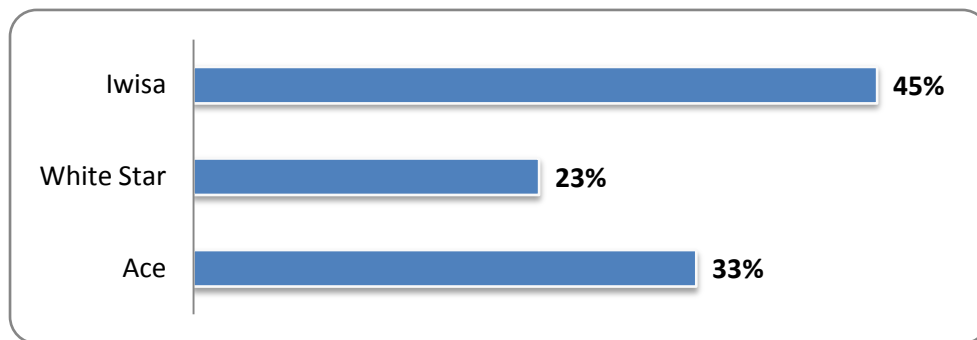
### **6.3.3. Brand preference**

Brand preference in the maize meal category was recorded in the final section of the interviewer-assisted questionnaire in order to exclude order bias, and provided information about actual preferences against which the results of the choice-based conjoint could be compared, thereby allowing for an additional measure of the reliability of the experimental design.

Illustrated in Figure 6.10, in order of most preferred to least preferred, the realised sample indicated *Iwisa* (45%), *Ace* (33%) and *White Star* (23%), with no preference shown for *Laduma* and *Impala*. Although differing from the data provided by SAARF (2013) that showed *White Star* being most preferred in the low-income market segments, the brand preference of the realised sample supports the choice of *Iwisa*, *White Star* and *Ace* as the



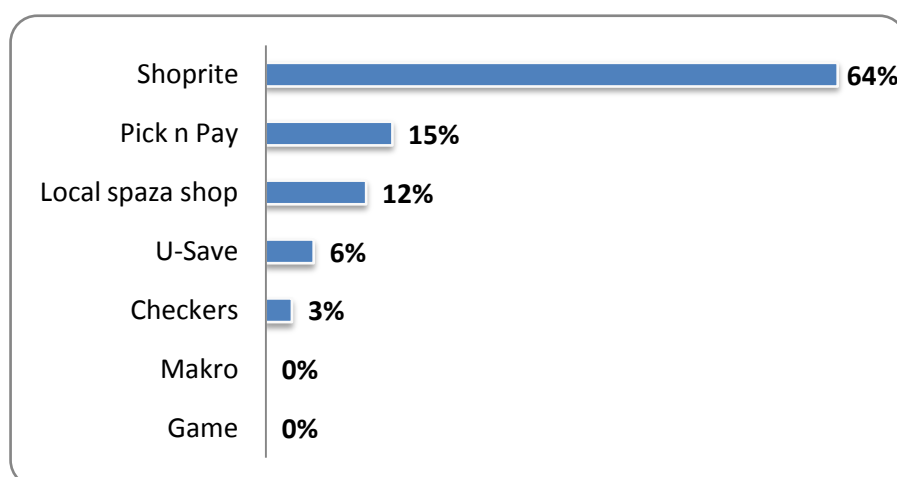
familiar national brands to be included in the design of the choice-based conjoint, and further supporting the experimental external validity.



**Figure 6.10: Brand preference (n=209)**

#### 6.3.4. Store preference

In light of possible brand familiarity bias associated with store loyalty (see Chapter 3), respondents were asked to indicate where they usually buy maize meal. Shown in Figure 6.11, the majority of respondents indicated Shoprite (66%), followed by Pick n Pay (15%), local spaza shops (12%), U-Save (6%), and Checkers (3%). The researcher attributes the low preference of U-Save to respondents still associating it with the parent brand Shoprite, giving it a combined preference of 72 per cent, and over two-thirds of the realised sample. With this in mind, the use of Shoprite's house brand *Ritebrand* as a familiar, yet hypothetical brand in the CBC is supported. Respondents' preference for the *Ritebrand* as an available alternative is assessed in the count analysis to follow.



**Figure 6.11: Store preference (n= 209)**

### 6.3.5. Count analysis

The count analysis as part of the choice-based conjoint, provides descriptive results indicating the *most liked* and *least liked* alternatives of the respondents, calculated per attribute (price and brand) at each level (Table 6.2 as shown in Table 1.2), suggesting the perceived importance of each attribute at each level. Respondents were asked to indicate most liked and least liked of price–brand combinations, suggesting trade-offs were made between price and brands.

**Table 6.2: Brands and prices**

	Brand	Price	
<i>Market leader, familiar</i>	<b>Ace</b>	<b>R18.99</b>	<i>25 % lower</i>
<i>Familiar</i>	<b>White Star</b>	<b>R24.99</b>	<i>Lowest across stores</i>
<i>Familiar</i>	<b>Iwisa</b>	<b>R28.99</b>	<i>Average across stores</i>
<i>Hypothetical, unfamiliar</i>	<b>Mnandi</b>	<b>R33.99</b>	<i>Highest across stores</i>
<i>Hypothetical, familiar</i>	<b>Ritebrand</b>	<b>R42.99</b>	<i>25% higher</i>

#### 6.3.5.1. Brand

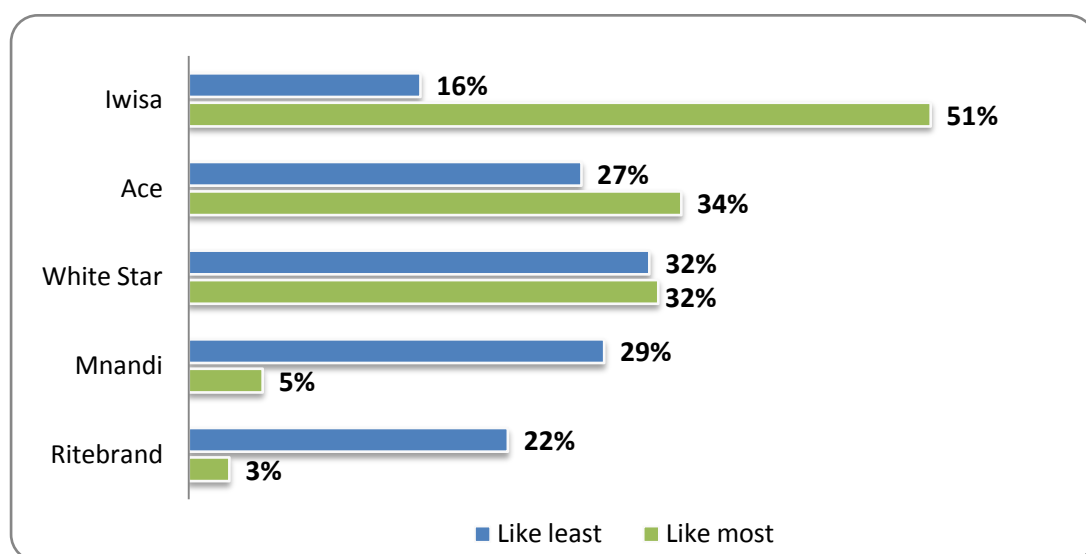
As shown in Table 6.3, each level was displayed similar number of times in the choice sets, excluding any possible biases and supporting the reliability of the experimental design. The findings show *Iwisa* was the most-preferred brand – chosen 506 times as most liked, and least liked 158 times – followed by *Ace* which was chosen as most liked 340 times and least liked 271 times. *White Star* followed, having been chosen 324 times as most liked, and 318 times as least liked.

**Table 6.3: Brand count analysis**

Brand	Displayed	Like most	Like least
<b>Ace</b>	1005	340	271
<b>Iwisa</b>	993	506	158
<b>Mnandi</b>	985	50	281
<b>White Star</b>	1005	324	318
<b>Ritebrand</b>	1004	28	220

The hypothetical brands *Ritebrand* and *Mnandi* performed poorly, being chosen as most liked only 78 times cumulatively, and least liked 501 times. The low preference for these brands could be attributed to the unfamiliarity of the brands and associated risk perceived by respondents, as discussed in literature in Chapter 3. Furthermore, the poor performance of *Ritebrand* suggests that either low-income respondents perceived the Shoprite house brand as indicative of poor quality, or as it is unavailable in stores, they associated it with higher risk, instead preferring what they know, and have tried before. These assumptions are tested in sections to follow through the analysis of the CBC.

Respondents' preferences for different brands, illustrated in Figure 6.12 as percentages of number of times displayed, show *Iwisa* to have been chosen as most liked 51 per cent of the times it was displayed, suggesting a possible lesser effect of price. In comparison, the difference in percentage chosen as most liked and least liked over total displayed, for *Ace* (34% and 27%) and *White Star* (32% and 32%) are seen to be relatively similar, suggesting price did not have a significant effect on respondents' preferences in these cases. The large discrepancies seen for *Mnandi* (5% and 29%) and *Ritebrand* (3% and 22%) could also be attributed to the poor brand perceptions of the unfamiliar brands, while suggesting that in these cases, different prices did influence individuals' preferences.



**Figure 6.12: Brand preference (Count analysis)**

The count analysis for brand across different national and hypothetical brands showed respondents' preference for most liked ranking from *Iwisa*, *Ace*, *White Star*, *Mnandi* to *Ritebrand*. However, respondents' preference for least liked shows changing preferences from *White Star*, *Mnandi*, *Ace*, *Iwisa*, and *Ritebrand* respectively, indicating price may have some effect on respondents' preferences for different brand alternatives. The findings that the least liked options do not correlate negatively with the options liked most may also suggest possible poor face validity. The least liked information was thus not used in further analysis. These descriptive findings surrounding brands suggested that further investigation into the perceived importance and effect of price and brand on consumer preference was required.

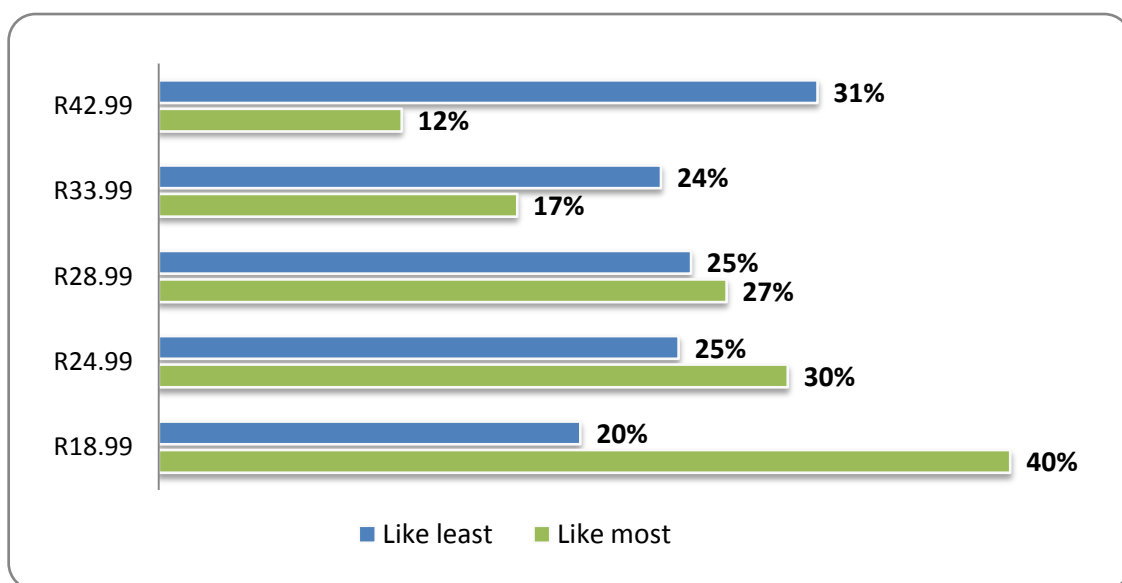
#### 6.3.5.2. Price

As discussed previously, respondents were asked to indicate which options they like most and like least among alternatives displayed in different choice sets. Shown in Table 6.4, different levels of price were displayed a similar number of times, reducing the possibility of bias. As expected in terms of pricing theory discussed in Chapter 3, respondents indicated a declining preference for higher prices, choosing R18.99 as liked most 398 times, R24.99 as liked most 294 times, R28.99 as liked most 271 times, R33.99 as liked most 167 times, and the highest price R42.99, chosen as liked most only 118 times. However, respondents' indication of least liked price showed changing preferences where R28.99 being preferred less than the higher price of R33.99. These discrepancies in respondent reactions to different prices suggest that consumer preferences cannot be understood as a one-dimensional linear function based wholly on price, but rather are influenced by various cues, including brand.

**Table 6.4: Price count analysis**

Price	Displayed	Like most	Like least
<b>R 18.99</b>	987	398	197
<b>R 24.99</b>	987	294	243
<b>R 28.99</b>	1008	271	254
<b>R 33.99</b>	984	167	234
<b>R 42.99</b>	1026	118	320

The preference of the different prices are also illustrated in Figure 6.13 as percentages of times they were displayed, revealing R18.99 to have been chosen as most liked 40 per cent of the times it was displayed, and R42.99 having been chosen as most liked only 12 per cent of the times it was displayed. Although R18.99 is seen as the most chosen, as expected representing the lowest price point, its “market share” of the realised sample of just 40 per cent does suggest that respondents were not completely price-sensitive, supporting the earlier findings regarding the importance of brand to be higher than price in decision-making process of low-income consumers.



**Figure 6.13: Price preference (Count analysis)**

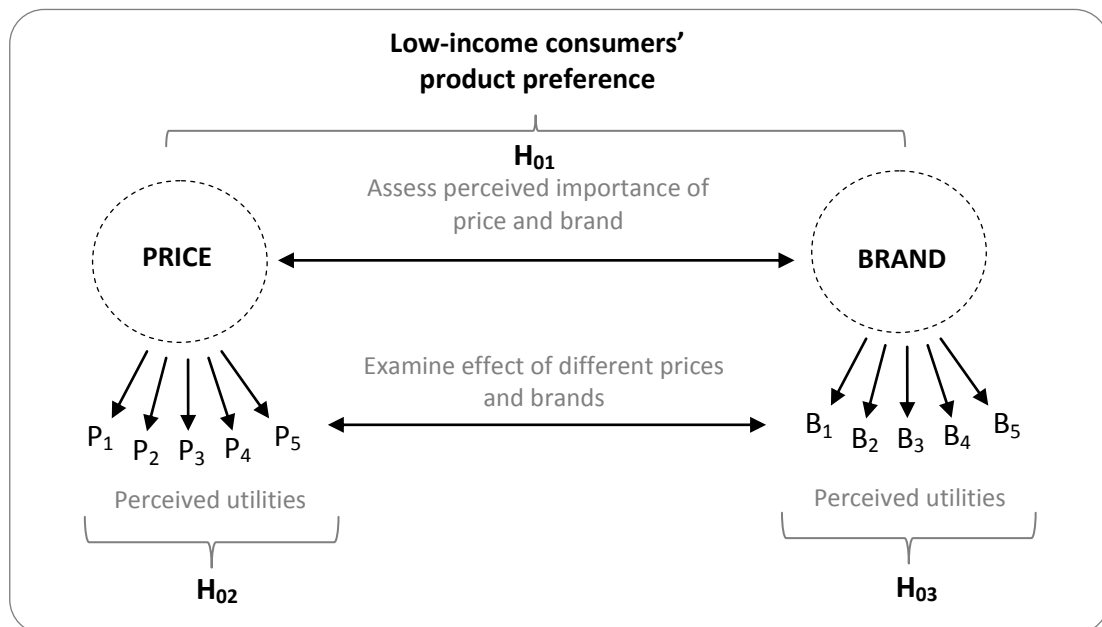
The small difference between most liked of R24.99 and R28.99 (30% and 27% respectively) and similarly between least liked (25% and 25% respectively) further implies a changing marginal benefit to different prices and degrees of saving as perceived by respondents. As with the brand preference discussed, the findings that the least liked options do not correlate negatively with the options liked most may also suggest possible poor face validity. The least liked information was thus not used in further analysis. The assumption that price has a dynamic influence on respondent preference is discussed in greater detail in the following sections.

## 6.4. INFERENCE STATISTICS

The primary objectives of this study were to assess the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examine the effect of different prices and brands on low-income consumers' product preference. Secondary research objectives were further formulated:

- To assess the importance of price and brand on low-income consumers' decision-making process.
- To examine the effect of different prices (R18.99; R24.99; R28.99; R33.99; R42.99) and brands (*Ace*; *White Star*; *Iwisa*; *Mnandi*; *Ritebrand*) on low-income consumers' product preference.

Research hypotheses were derived from the respective research objectives (see Figure 6.14), and addressed using different statistical tests, as indicated in Table 6.5.



**Figure 6.14: Research objectives and hypotheses**

As discussed by Hair *et al.* (2007), data becomes knowledge only after analysis has confirmed that a set of proposed relationships or differences can be used to improve business

decision-making. Inferential analysis uses null-hypothesis testing to assess the proposed relationships and differences between the key variables, in order for inferences about the population to be made. The results of the inferential analysis of this study were used to formulate conclusions and build managerial recommendations, seen in Chapter 7.

**Table 6.5: Research objectives and hypotheses**

HYPOTHESIS	INFERENTIAL TEST
<b>OBJECTIVE 1: To measure the importance of price and brand on low-income consumers' decision-making process.</b>	
H <sub>01</sub> : There is no difference in low-income consumers' perceived importance of <i>price</i> and <i>brand</i> in their decision-making process	One sample t-test
<b>OBJECTIVE 2: To assess effect of different prices (R18.99; R24.99; R28.99; R33.99; R42.99) and brands (Ace; White Star; Iwisa; Mnandi; Ritebrand) on low-income consumers' product preference.</b>	
H <sub>02</sub> : There is no difference in <i>utilities</i> between brands ( <i>Ace; White Star; Iwisa; Mnandi; Ritebrand</i> )	Two-way repeated measures ANOVA
H <sub>03</sub> : There is no difference in <i>utilities</i> between price ( <i>R18.99; R24.99; R28.99; R33.99; R42.99</i> )	Two-way repeated measures ANOVA

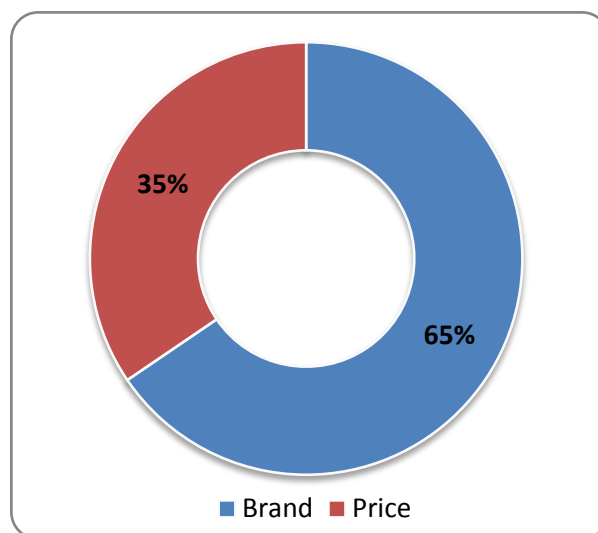
#### 6.4.1. The importance of price and brand in decision-making

In order to assess the perceived importance of price and brand on low-income consumers' decision-making process, inferential analysis was conducted from the data elicited through the CBC. Following the count analysis that showed respondents' preferences (most and least liked), the utilities of each brand and price was calculated. As discussed (see 5.10.3), the hierarchical Bayes analysis was run through the statistical program R (Bayes M package).

The Bayes procedure determined each respondent's utility associated with the attributes of brand and price, at each level, then exported to Microsoft Excel.

From there, each respondent's range of utilities was determined (maximum utility to minimum utility). Individual importance weights for each attribute were calculated as a percentage of the range of utilities, producing an interdependent, continuous variable measuring the perceived importance of price and brand respectively.

The mean perceived importance of brand and price respectively, reflect an interdependent score out of 100 as illustrated in Figure 6.15.



**Figure 6.15: Summary of perceived importance of price and brand**

The mean scores of price and brand across all respondents indicated that, in the case of the prices and brands in this study, 65.5 per cent of respondents' decisions could be attributed to brand, and 34.5 per cent to price. These findings suggest that low-income consumers attribute greater importance to brand than price when comparing alternatives in the maize meal category.



In order to confirm that a statistical difference does exist between the perceived importance of brand and price, and as the data sum to one, the following hypothesis was formulated:

**H<sub>01</sub>:** Low-income consumers' perceived importance of *brand* is equal to 0.5, and thus there is no difference in low-income consumers' **perceived importance** of *price* and *brand* in their decision-making process

A one-sample t-test (see 5.10.3.1) for comparing sample proportions against a standard was conducted to test for a significant statistical difference between the perceived importance of price and brand in low-income consumers' decision-making process. In order to test for significant difference between these interdependent values, a statistical null hypothesis was formulated.

The results seen in Table 6.6 show that with a 99 per cent confidence level, **H<sub>01</sub>** can be rejected ( $t = 41.671$  (208);  $p < 0.01$ ), suggesting respondents' perceived importance of brand is not equal to 0.5, and thus also not equal to low-income consumers' perceived importance of price. To conclude, the respondents attributed greater weight to brand (65%) than price (35%) when comparing alternatives in the maize meal category, in light of the range of prices and brands tested.

**Table 6.6: Results of one-sample t-test**

One-sample t-test (H <sub>01</sub> )						
	Test Value = .05					
	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval of the difference	
					Lower	Upper
IMPORTANCE of BRAND	41.671	208	.000	.61145	.5825	.6404

The greater perceived importance of brand is supported by the psychographic data discussed earlier (see 6.3.1), showing respondents indicating that brand familiarity is an important consideration in the decision-making process. Furthermore, the belief that price signals

quality, as suggested by respondents' attitudes toward price–quality consciousness, could also support the lower reliance on price.

The importance of brand in the decision-making process can also be explained by the different roles brands play for firms and consumers (see 3.2.2). Brands allow for firms to differentiate their product offering from their competitors by creating brand associations and building a brand image. In this way, brands offer a means for consumers to evaluate and compare alternatives, depending on the brand knowledge they possess of the available brands. The powerful influence of the brand above other cues such as price on respondents' evaluation of the alternatives in the CBC, can justify the existence of the “brand effect” on respondents' decision-making process. The possible influence of different brands and prices are examined in the following section, and further contribute to the concept of the brand effect and its influence on respondents' decision-making and product preference.

#### **6.4.2. The effect of brand and price on product preference**

The count analysis (see 6.3.5) established respondents' preference for the attributes at each level in terms of number of times indicated most liked and least liked. However, this was insufficient to statistically address the following research objective:

- To assess the effect of different prices (R18.99, R24.99, R28.99, R33.99, R42.99) and brands (*Ace*, *White Star*, *Iwisa*, *Mnandi*, *Ritebrand*) on low-income consumers' product preference.

As discussed, the hierarchical Bayes procedure determined each respondent's utilities associated with the attributes (price and brand) at each level. Two-way repeated measures ANOVA compare the means of the utilities associated with each level of each attribute. This was used to test the formulated research hypotheses:

$H_{02}$ : There is no difference in *utilities* between brands (*Ace*, *White Star*, *Iwisa*, *Mnandi*, *Ritebrand*)

$H_{03}$ : There is no difference in *utilities* between prices (R18.99, R24.99, R28.99, R33.99, R42.99)

#### 6.4.2.1. Brand utilities

Two-way repeated measures ANOVA test for significant main effects and two-way interaction effects between the different alternatives. In the case of the current study, the main and interaction effects were formulated into further statistical hypotheses, as follows:

*Main effect:*

- $H_{02}$ : There is no difference between perceived utility of different brands

*Two-way effects:*

- There is no difference between perceived utility of *Ace* and *Iwisa*
- There is no difference between perceived utility of *Ace* and *Mnandi*
- There is no difference between perceived utility of *Ace* and *White Star*
- There is no difference between perceived utility of *Ace* and *Ritebrand*
- There is no difference between perceived utility of *Iwisa* and *Mnandi*
- There is no difference between perceived utility of *Iwisa* and *White Star*
- There is no difference between perceived utility of *Iwisa* and *Ritebrand*
- There is no difference between perceived utility of *Mnandi* and *White Star*
- There is no difference between perceived utility of *Mnandi* and *Ritebrand*
- There is no difference between perceived utility of *White Star* and *Ritebrand*

The two-way repeated measures ANOVA addressed all the statistical hypotheses. The results thereof indicated that in the case of the main effects of *brand*, with a 99 per cent confidence level,  $H_{02}$  can be rejected ( $F(4)=484.20$ ;  $p<0.001$ ). These findings suggest that there are

significant differences in the perceived utilities of different brands, namely *Ace*, *White Star*, *Iwisa*, *Mnandi* and *Ritebrand* respectively. As shown in Table 6.6, the mean scores of the respective brands show that *Iwisa* (5.9093) was perceived by respondents as representing the highest utility, followed by *Ace* (4.5200) and *White Star* (4.3609) with competing utilities, while *Mnandi* (-4.2662) and *Ritebrand* (-10.5241) were seen to have low levels of perceived utility.

The associated brand utilities are supported by the descriptive count analysis of respondents' preference where *Iwisa* (51%) was most liked, followed by *Ace* (34%) and *White Star* (32%), and trailed by the hypothetical brands *Mnandi* (5%) and *Ritebrand* (3%). Building on the findings that respondents perceived brand as more important as price in the context of the study, the main effects suggest that different brands are perceived by respondents as having different levels of utility, and thus differing brand effects.

**Table 6.7: Main effects of brand**

	Brand	N	Mean	d.f	F	P	
1	Ace	209	4.5200	4	484.1972	0.00	REJECT
2	Iwisa	209	5.9093				
3	Mnandi	209	-4.2662				
4	WhiteStar	209	4.3609				
5	Ritebrand	209	-10.5241				

To isolate the differences among the brands, a series of least significant differences (LSD) (post hoc comparisons) were conducted. The LSD post hoc tests established the two-way effects of the brands on respondents' perceived utilities by comparing brands against one another. Shown in Table 6.8, significant differences were found among all brands ( $p < 0.01$ ), except between *White Star* and *Ace* ( $p > 0.05$ ), suggesting that there is no significant difference between perceived utility associated with these brands, making them equally attractive to consumers, when compared without price.

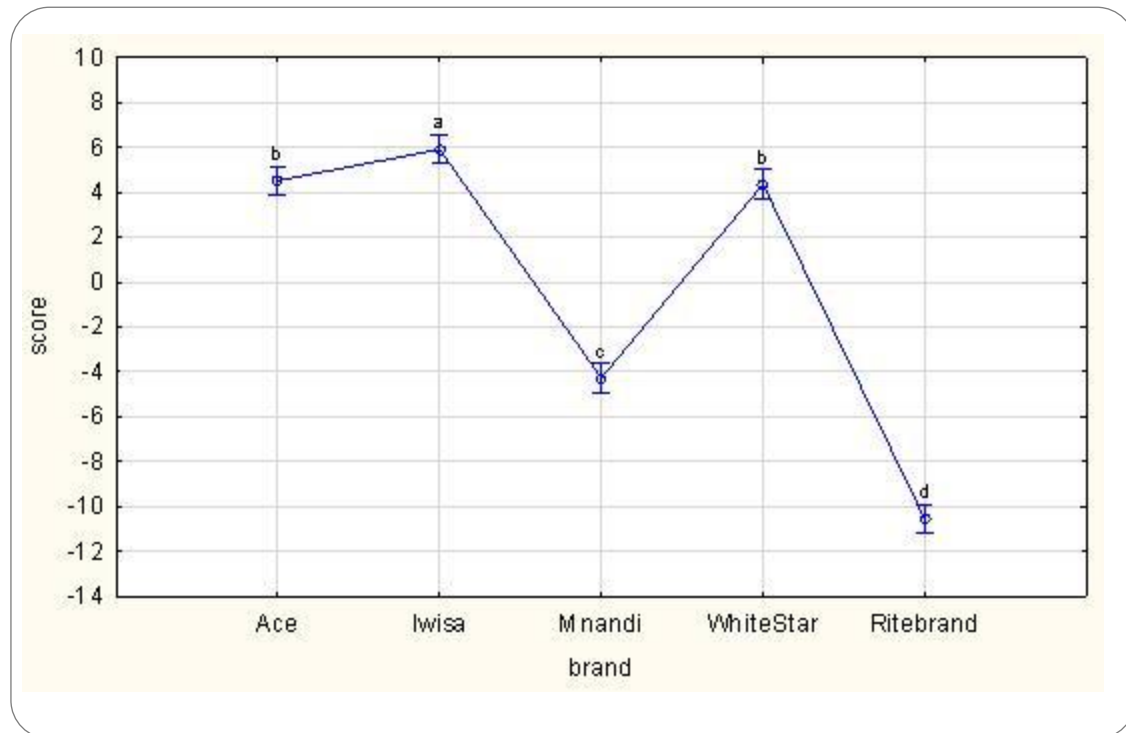
**Table 6.8: Two-way effects of brand**

Interaction effect	1st - Mean	2nd - Mean	P	
{1}-{2}	Ace	Iwisa	0.002504	REJECT
{1}-{3}	Ace	Mnandi	0.000000	REJECT
{1}-{4}	Ace	WhiteStar	<b>0.728578</b>	DO NOT REJECT
{1}-{5}	Ace	Ritebrand	0.000000	REJECT
{2}-{3}	Iwisa	Mnandi	0.000000	REJECT
{2}-{4}	Iwisa	WhiteStar	0.000761	REJECT
{2}-{5}	Iwisa	Ritebrand	0.000000	REJECT
{3}-{4}	Mnandi	WhiteStar	0.000000	REJECT
{3}-{5}	Mnandi	Ritebrand	0.000000	REJECT
{4}-{5}	WhiteStar	Ritebrand	0.000000	REJECT

The results of the two-way repeated measures ANOVA are illustrated in Figure 6.16, showing consumers' perceived utility across all brands. The overwhelming reluctance of respondents in the realised sample to trust the hypothetical brands *Mnandi*<sup>c</sup> and *Ritebrand*<sup>d</sup>, highlights the possible effect and influence of brand familiarity in the BOP market segment.

Contrary to much of the qualitative primary research conducted through interviews with store managers of retail outlets together with the assumption that low-income consumers are solely price-sensitive, this experiment saw a tendency for individuals to be risk-averse to unfamiliar products, even in largely homogenous product categories such as maize meal. This may have implications for marketers in this market segment attempting to develop new products, by emphasising the importance of establishing a familiar and trusted brand.

The influence of brand familiarity and the brand effect, was clearly seen in the inverse with the much greater perceived utility associated with the national and familiar brands *White Star*<sup>b</sup>, *Ace*<sup>b</sup> and *Iwisa*<sup>a</sup>. This finding illustrates the power and influence that established brands hold within the BOP market segment, creating largely inelastic demand.



**Figure 6.16: Two-way effects of brand**

#### 6.4.2.2. Price utilities

As with the brand utilities, two-way repeated measures ANOVA tested for significant main effects and two-way interaction effects between the different price levels. In the case of the current study, the main and interaction effects were formulated into further statistical hypotheses, as follows:

*Main effect:*

- $H_{03}$ : There is no difference between perceived utility of different prices.

*Two-way effects:*

- There is no difference between perceived utility of R18.99 and R24.99
- There is no difference between perceived utility of R18.99 and R28.99
- There is no difference between perceived utility of R18.99 and R33.99
- There is no difference between perceived utility of R18.99 and R42.99
- There is no difference between perceived utility of R24.99 and R28.99
- There is no difference between perceived utility of R24.99 and R33.99

- There is no difference between perceived utility of R24.99 and R42.99
- There is no difference between perceived utility of R28.99 and R33.99
- There is no difference between perceived utility of R28.99 and R42.99
- There is no difference between perceived utility of R33.99 and R42.99

The two-way repeated measures ANOVA addressed all the statistical hypotheses. The results thereof (Table 6.9) indicated that in the case of the main effects of *price*, with a 99 per cent confidence level,  $H_{03}$  can be rejected ( $F(4)=195.53$ ;  $p<0.01$ ). The results suggest that there are significant differences in the perceived utilities of different prices, namely R18.99, R24.99, R28.99, R33.99 and R42.99 respectively. As expected, lower prices have higher perceived utility and vice versa, where the mean utility scores of the respective prices declined from R18.99 (3.17111), R24.99 (1.75538), R28.99 (1.57925), R33.99 (-1.74431) to R42.99 (-4.76143).

**Table 6.9:** Main effects of price

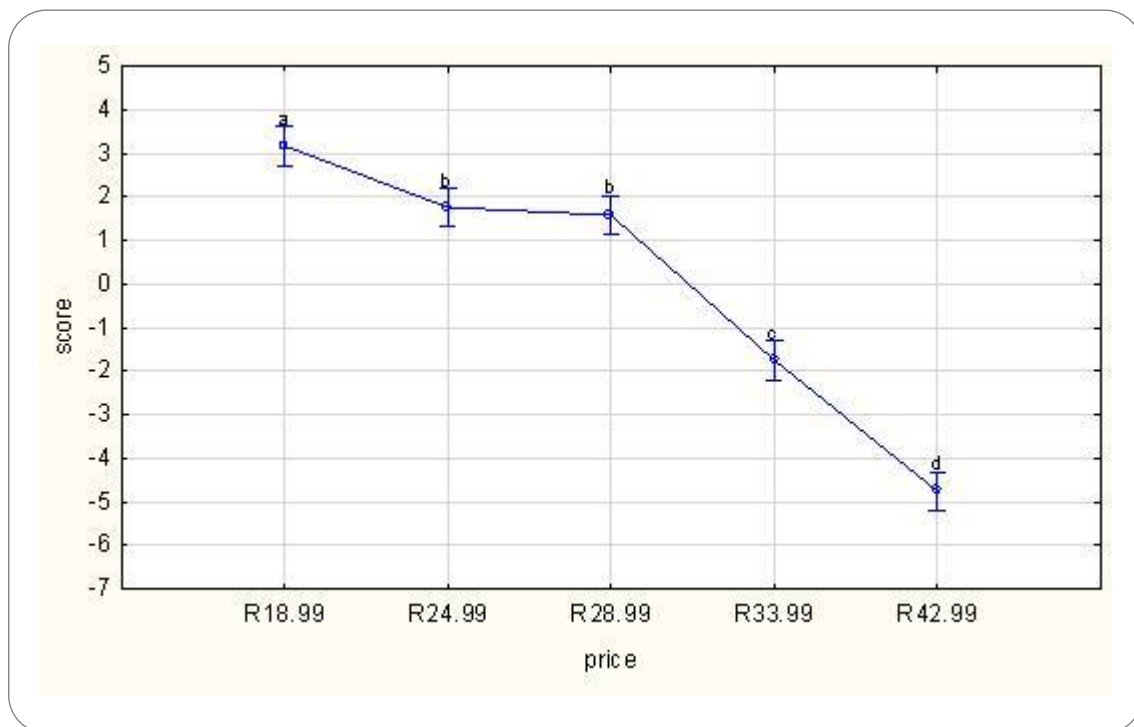
	Price	N	Mean	d.f	F	P	
1	R18.99	209	3.17111	4	195.53	0.00	<b>REJECT</b>
2	R24.99	209	1.75538				
3	R28.99	209	1.57925				
4	R33.99	209	-1.74431				
5	R42.99	209	-4.76143				

To isolate the differences among the brands, a series of least significant differences (LSD) (post hoc comparisons) were conducted. The LSD post hoc tests established the two-way effects of the prices on respondents' perceived utilities by comparing mean utilities of each price level against one another. As seen in Table 6.10, significant differences ( $p<0.01$ ) were found among all the prices when compared, except in the case of R24.99 and R28.99 ( $p>0.05$ ), suggesting that consumers' perceived utility is not affected when evaluating alternatives at either of these prices.

**Table 6.10:** Two-way effects of price

Interaction effect	1st - Mean	2nd - Mean	P	
{1}-{2}	R18.99	R24.99	0.00	REJECT
{1}-{3}	R18.99	R28.99	0.00	REJECT
{1}-{4}	R18.99	R33.99	0.00	REJECT
{1}-{5}	R18.99	R42.99	0.00	REJECT
{2}-{3}	R24.99	R28.99	<b>0.588177</b>	DO NOT REJECT
{2}-{4}	R24.99	R33.99	0.00	REJECT
{2}-{5}	R24.99	R42.99	0.00	REJECT
{3}-{4}	R28.99	R33.99	0.00	REJECT
{3}-{5}	R28.99	R42.99	0.00	REJECT
{4}-{5}	R33.99	R42.99	0.00	REJECT

The results of the two-way repeated measures ANOVA are illustrated in Figure 6.17, showing consumers' perceived utility across all prices. As expected, respondents' perceived utility decreased as prices increased, seen in the downward sloping function. However, this decreasing utility was not symmetrical across all prices. The difference in perceived utility between the lowest price point R18.99<sup>a</sup>, and the medium price point R28.99<sup>b</sup> was marginal, compared to the significant decline from R28.99 to R33.99<sup>c</sup> to R42.99<sup>d</sup>.

**Figure 6.17:** Two-way effect of price



The dynamic utilities associated with the different price levels used in the study suggest that low-income respondents do not always perceive price in the same way. Furthermore, the marginal changes in perceived utility associated with the price range R18.99 to R28.99 also suggest that respondents are not as price-sensitive in this range.

The dual nature of price as a both a sacrifice and indicator of product quality through price–quality inferences can also explain respondents’ dynamic perceived utilities associated with different prices. As discussed by Burton *et al.* (1998), higher prices can be perceived as indicative of greater quality and lower levels of risk associated with the purchase.

The small changes in perceived utility associated with the lower prices (R18.99- R28.99) suggests that respondents may not perceive significant changes in product quality at these different prices, while prices higher than R28.99 represented too large a monetary sacrifice associated with decreasing levels of perceived utility. In light of the brand effect discussed in the brand utilities, the influence of brand and brand associations on respondents’ evaluations of alternatives could also be attributable to the changing price utilities.

#### **6.4.2.3. Market simulator**

Marketers are largely unable to predict consumer choice. However, as discussed by Green *et al.*, (2001), conjoint analysis allows for the simulation of how consumers might react to changes in current products or to new products to be assessed. Market simulations thus allow marketers the ability to predict consumers’ purchases, given a set of available alternatives. The market simulator was used to address the research objectives and illustrate the role of price and brand on low-income consumers’ decision-making, and to further examine the effect of different prices and brands on respondents’ product preference.

The inferential analysis of brand and price using two-way repeated measures ANOVA found significant differences between certain brands and prices respectively, suggesting that changes in price and brands do affect low-income consumers’ decision-making in the maize

meal category. As discussed in Chapter 5, The MNL model formula (as stated below) was then used to predict low-income consumers' purchase probabilities of alternatives of different price–brand combinations.

$$p(i|J) = \exp(bx_i) / \sum_j \exp(bx_j)$$

The market simulations explored the interrelated effects of price and brand on the purchase probability of low-income consumers. Simulations of realistic different price–brand combinations were developed using the different levels of price (R18.99, R24.99, R28.99, R33.99, R42.99) and brand (*Iwisa*, *White Star*, *Ace*, *Mnandi*, *Ritebrand*) where significant differences were found, producing six different possible market situations.

The market simulations were built on the assumptions that there are price differences in the marketplace and perceived differences among brands, as established in the inferential analysis. The differences in price, perceived quality and brand, force respondents to estimate utilities associated with different prices and brands, among other cues, and make trade-offs. Although these predictions cannot accommodate the various extraneous cues that may influence consumer decision-making as identified in the secondary research, they do provide some insight into the possible influences of price and brand on decision-making in the maize meal category.

As shown in Table 6.11, six simulations were run, each comprising four randomly chosen price–brand combinations. The likelihood of no purchase was also accommodated, inferred from the likelihood of the respondent choosing the most liked product. The average purchase probability of each price–brand alternative estimates the likelihood of that alternative being chosen by the respondent relative to its competitors, indicating the price–brand alternative most likely to be chosen.

**Table 6.11: Market simulator**

	Brand	Price	Average purchase probability (MNL)
<b>Simulation 1</b>	Mnandi	R18.99	0.05
	White Star	R24.99	0.22
	Ace	R28.99	0.33
	<b>Iwisa*</b>	<b>R33.99*</b>	<b>0.38*</b>
	No purchase	-	0.01
<b>Simulation 2</b>	Ace	R33.99	0.18
	Mnandi	R18.99	0.21
	Ritebrand	R24.99	0.00
	<b>White Star*</b>	<b>R28.99*</b>	<b>0.60*</b>
	No purchase	-	0.02
<b>Simulation 3</b>	Iwisa	R42.99	0.38
	Mnandi	R33.99	0.01
	Ritebrand	R18.99	0.05
	<b>White Star*</b>	<b>R24.99*</b>	<b>0.53*</b>
	None	-	0.02
<b>Simulation 4</b>	<b>Iwisa*</b>	<b>R33.99*</b>	<b>0.40*</b>
	White Star	R28.99	0.37
	Ritebrand	R24.99	0.00
	Mnandi	R18.99	0.20
	None	-	0.02
<b>Simulation 5</b>	<b>Iwisa*</b>	<b>R18.99*</b>	<b>0.50*</b>
	Ace	R28.99	0.42
	White Star	R33.99	0.07
	Mnandi	R42.99	0.00
	None	-	0.01
<b>Simulation 6</b>	White Star	R24.99	0.39
	<b>Iwisa*</b>	<b>R28.99*</b>	<b>0.44*</b>
	Ritebrand	R18.99	0.05
	Ace	R33.99	0.11
	None	-	0.01

\*brand and price combination most likely to be chosen

The average purchase probability provided a measure of respondents' product preference. In terms of price, in only one case (simulation 5) was the cheapest alternative (R18.99) indicated as the one most likely to be chosen, and then only when attached to a familiar and trusted brand (*Iwisa*). In the other simulations as indicated in Table 6.11, respondents indicated greater purchase probability for more expensive alternatives, and in one case (simulation 1), the most expensive alternative was most likely to be purchased, relative to the available options.

The tendency for respondents not to indicate greater preference for the cheapest options supports the existing literature which refutes several misconceptions surrounding emerging consumers in the BOP (Wood *et al.*, 2008; Pitta *et al.*, 2008; Subrahmanyam and Gomez-Arias, 2007; D'Andrea *et al.*, 2006; Hamilton and Catterall, 2000). These misconceptions portray low-income consumers as wholly price-sensitive and attracted by low shelf prices, regardless of other cues such as brand. However, as seen in the market simulators, low-income consumers use both price and brand and their associations in order to evaluate available alternatives. These consumers also frequently trade off lower prices against brand familiarity as seen in the expected purchase of the national brands *Iwisa*, *White Star* and *Ace*. The trade-offs between price and brand suggest that there may be a tipping point where price–quality inferences counterbalance brand familiarity.

The importance of brand is reinforced by the results of the market simulator. The hypothetical brands (*Mnandi* and *Ritebrand*) performed poorly across all simulations, despite having significant price advantages. The low purchase probabilities associated with these unfamiliar brands is attributed to the role of brand knowledge in respondents' decision-making process. Brand knowledge refers to brand associations and image, brand familiarity and brand credibility, and is the collected experience and information relating to a particular brand, stored in individuals' memory (Huang and Sarigollu, 2011; Baek *et al.*, 2010; Erdem and Swait, 2007; Biswas, 1992; Hoyer and Brown, 1990).

Applied to the market simulations, brand awareness can be used to explain the greater purchase probability attached to the national brands over the hypothetical brands. Furthermore, the higher purchase probability associated with *Iwisa* above other national brands (*White Star*), even at higher prices (simulations 4 and 6), suggests that respondents associate greater brand credibility and quality with *Iwisa*'s brand image. The tendency for respondents to choose higher priced products, despite cheaper alternatives, again emphasises how respondents' perceived price–quality inferences may associate high prices with superior value, and conversely lower prices with inferior value.

Overall, the results of the market simulations suggest that, when faced with these alternatives, respondents' product preference is guided by brand familiarity and credibility, and associated price–quality inferences. The implications of the market simulation corroborate the inferential testing of the hypotheses, and provide further insights into the dynamic trade-offs that low-income consumers make between prices and brands, to be discussed in greater detail in Chapter 7.

## **6.5. CONCLUSION**

The raw data collected via fieldwork was assessed using descriptive and inferential analysis. The results suggest that respondents, despite having limited income, perceived brand to be more important in the decision-making process, in the maize meal category, and had dynamic preferences regarding different prices and brands. Although lower prices did have high perceived utilities, the price-sensitivity of low-income consumers was seen to be less influential at lower price ranges, suggesting the influence of brand and brand associations on their evaluation of alternatives. Familiar brands were seen to positively influence low-income consumers' purchase probability by reducing perceived risk, further enhanced by brand credibility indicating consistent quality and increasing purchase intention. Unfamiliar brands were perceived as having low levels of utility and contributed to low-income consumers perceiving these alternatives as risky, with quality inferences which were fuzzy and difficult to determine.

To understand the role that price and brand play in the purchase decision process, an understanding of the information the buyer brings into the purchase situation is required. This study, following the marketing research process, took a decompositional approach to assess the effect of different cues (price and brand) on consumers entering a purchase situation. This was done by re-creating choice situations through the choice-based conjoint. The results guided the formulation of the research conclusions and managerial recommendations in the next chapter.

## CHAPTER 7 | CONCLUSIONS AND RECOMMENDATIONS

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### 7.1. INTRODUCTION

Formulating conclusions and managerial recommendations is the final step of the marketing research process, and consolidates the research objectives of the study into practical and actionable strategies. In this chapter, the results discussed in Chapter 6 are reiterated and, supported by the secondary research, research conclusions are developed to explain and contextualise the results against those of extant literature. Building upon this study's research conclusions, managerial recommendations are made which provide key guidelines and strategies for firms currently in operation or considering operating in the BOP market segment. Limitations of the study are discussed together with future research opportunities which address possible bias of the data, and the remaining gaps in literature surrounding low-income consumers' decision-making respectively. The reconciliation of objectives outlines the research process employed to address the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examines the effect of different prices and brands on low-income consumers' product preference.

### 7.2. RESULTS

Primary causal research employing CBC analysis was conducted using a judgement sample of black female adults. The current study used a 5 (price presentation: R18.99, R24.99, R28.99, R33.99, R42.99) x 5 (brand presentation: *Ace*, *Iwisa*, *White Star*, *Mnandi*, *Ritebrand*) between subjects design within the maize meal product category. A total of 303 respondents, resulting in 209 completed questionnaires, were approached by fieldworkers in informal settlements in Gauteng and assisted through an electronic questionnaire. This section reiterates the results of the primary data analysis, providing an overview of the results discussed in Chapter 6. The importance of price and brand, and the effect of prices and brands on low-income consumers' product choice are discussed.

### 7.2.1. The importance of price and brand in decision-making

Low-income consumers' perceived importance of price and brand was calculated using the hierarchical Bayes procedure on the raw data of the CBC. The results showed that low-income consumers attributed 65 per cent of their purchase decision to brand, and 35 per cent to price. These findings confirm two propositions: firstly, that low-income consumers employ complex decision-making strategies, making trade-offs between different cues supplied by marketers, including price and brand; and secondly, that despite restrictions on income, price is not the most important and influential cue when considering alternatives.

### 7.2.2. The effect of price and brand on product preference

Two-way repeated measures ANOVA was used to test for significant differences between the perceived utility associated with different levels of price and brand. The results indicated that no significant differences were found between the brands, except in the case of *White Star* and *Ace*. The two hypothetical brands *Mnandi* and *Ritebrand* performed poorly in terms of utility and were chosen least often. *Iwisa* had the highest perceived utility, and consumers' willingness to pay high prices for *Iwisa* over other alternatives shown in market simulations also suggests that consumers associated greater brand credibility with this familiar brand. The low perceived utility of *Mnandi* (the hypothetical and unfamiliar brand) was expected and was attributed to the value that consumers in this market give to brand familiarity, supported by the psychographic information which was collected and analysed. The lowest perceived utility was attributed to *Ritebrand*, the hypothetical yet familiar house brand of Shoprite. This poor performance was unexpected in view of the strong brand image that Shoprite holds in this market segment, and could be attributed to the possibility that respondents knew it did not exist.

In the case of price, as expected, higher prices were perceived as having low utility and vice versa. However, following the two-way repeated measures ANOVA, no significant differences were found between R24.99 and R28.99, suggesting that any price in this range

would not affect low-income consumers' perceived utility. The lack of significant difference between R24.99 and R28.99, together with the small loss of utility from R18.99 to this plateau, suggests that when firms offer convincing value propositions, then choosing the lowest price is not the dominant choice tactic for low-income consumers. Practically speaking, the findings of this study suggest that firms with strong brand strategies can set prices around R28.99, above current promotional prices, without significantly negatively affecting consumers' perceived utility. This finding is explained in light of the dual nature of price (see 3.2.1.1) as both an indicator of quality and sacrifice; while low-income consumers do value lower prices, they are willing to pay higher prices to receive greater perceived value from product offerings. Overall, the lower perceived importance of price seen in the research results, as well as the dynamic utilities associated with the price levels used in the study, suggest that low-income consumers do not always perceive price in the same way.

The outlined results support the argument by D'Andrea *et al.* (2008) which challenges the myths that low-income consumers are driven solely by lowest cost and are drawn to lowest shelf prices. The current study recognises the dynamic evaluations that people in this market segment make when faced with alternatives, even with relatively homogenous products in the FMCG category. Research conclusions are drawn from the secondary research to explain the role of price and brand on low-income consumer decision-making, and the effect of price and brand thereon.

### **7.3. RESEARCH CONCLUSIONS**

The results of the research suggest that low-income respondents use both price and brand when evaluating alternatives in the maize meal category. The research conclusions apply these results to the broader context of consumer decision-making in the low-income market segment. Relevant theory drawn from the review of literature in earlier chapters serves to provide context for these results, facilitating a more dynamic discussion surrounding the perceived importance and effect of price and brand on low-income consumers' product



preference. These conclusions consolidate the primary objectives, highlight the key contributions of the study and guide the managerial implications formulated in the following section.

### **7.3.1. Low-income consumers' decision-making is complex and dynamic**

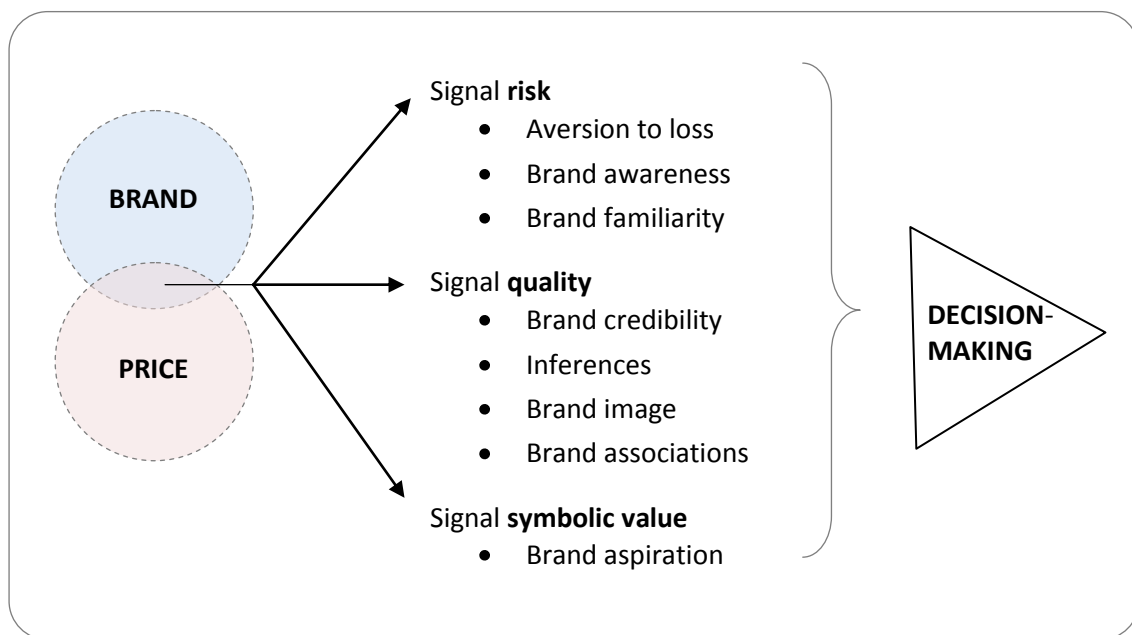
The purpose of this study was built on the premise that consumers are daily faced with complex decisions made under conditions of uncertainty. With limited information, resources and time, individuals are forced to make trade-offs between perceived benefits and costs to maximise utility, avoid perceived losses and satisfy their needs (Jackson, 2005; Tversky and Kahneman, 1991; Monroe, 1976; Jacoby *et al.*, 1971; Tull *et al.*, 1964). Because of this environment, consumers are faced with dynamic trade-offs between different cues, supplied by marketers.

Price and brand represent two significant cues which are under the control of marketers, that communicate value to consumers in the marketplace. The goal of marketing is to use these cues along with others to build effective value propositions that attract, satisfy and retain consumers, in order to ensure long-term profitability. Understanding the role of price and brand in the consumer's decision-making process, as well as how they are perceived by consumers, is vital in ensuring that these value propositions are maintained.

Recognising the multi-attribute nature of decision-making, the current study employed a CBC to accommodate both price and brand at varying levels, to assess the decision-making process of low-income consumers. Through the use of market simulations, the CBC was able to predict the purchase probabilities of different brand and price combinations. The results confirmed that even low-income consumers with severe restrictions on resources, employ complex decision-making strategies in order to deal with asymmetrical knowledge of different alternatives. Low-income consumers use both price and brand as interrelated and interdependent cues and their associated inferences when making decisions, even for relatively homogenous products in the FMCG category.

In contrast to main assumptions of the theory of rational choice, the findings of the study show that consumers having changing preferences and do not rely on one predefined and stable underlying preference structure, which supports the conclusions of Drolet (2002) and Bettman *et al.* (1998). Also refuted by the study's findings is the belief that for low-income consumers, such an underlying preference structure is determined by price alone.

The current study was undertaken to assess the role of price and brand in low-income consumers' decision-making. The CBC determined that low-income consumers consider price and brand conjointly when faced with the specific alternatives. Furthermore, the research results showed that price and brand can play various and interdependent roles when low-income consumers are evaluating alternatives. The different roles of price and brand (see Figure 7.1) are built upon the conclusion that low-income consumers have dynamic decision-making processes. These are discussed in the next section.



**Figure 7.1: The roles of price and brand in low-income consumer decision-making**

### **7.3.2. Price and brand signal risk**

Price and brand are discussed as possible signals of risk to consumers, thus influencing their decision-making process. The research results showed low-income respondents attributing greater perceived importance to brand than price, with varying utility associated with different prices at different levels. The results suggest that in the case of maize meal, consumers' perceived risk associated with the aversion to loss may influence their evaluation of alternatives.

As discussed under 2.3.5, loss aversion theory (which is built on the concepts of perceived risk and return) asserts that people are more likely to act to avoid perceived loss, than look to achieving a similar gain. In the context of the study, low-income consumers' evaluation of alternatives in the maize meal category can be explained by the presence of individuals willing to pay a higher price for a product they are familiar with, rather than risk purchasing an unfamiliar product that may be of unsatisfactory quality. The tendency to associate higher prices with greater quality suggests low-income consumers make price–quality inferences, even when shopping for items such as maize meal.

Building on the possible influence of price–quality inferences, the choice heuristic of “you pay for what you get” could also possibly explain low-income consumers' attitude towards lower prices. This choice tactic may cause them to be more hesitant about lower-priced products, even for familiar brands, which is aggravated by the higher levels of risk associated with their purchases owing to limited disposable income. Perceived risk, in the case of the current study, could be further attributed to brand knowledge – that is, individuals' knowledge of the product, brand and price and what that means for them.

Brand awareness and brand familiarity (part of brand knowledge) can also be related to the role of price and brand in low-income consumers' decision-making as a signal of risk. Brand knowledge refers to individuals' combined experience, perception and memory of certain products and brands, and can be understood on a continuum reaching from brand awareness

and brand familiarity to those more established levels of brand knowledge associated with brand loyalty (Hoyer and Brown, 1990).

Brand awareness is the most rudimentary level of brand knowledge. The role of brand awareness is discussed in light of the hypothetical, unfamiliar brands tested in the CBC. The poor utility associated with the two unfamiliar brands (*Mnandi* and *Ritebrand*) suggests that brand awareness is a factor in low-income consumers' decision-making. In the context of loss aversion, unfamiliar brands may signal higher perceived risk, as individuals have no prior experience with them, thereby negatively affecting purchase probability. The greater perceived importance which is associated with brand, supports the explanation that despite price advantages, low-income consumers will avoid purchasing brands of which they have little knowledge.

The significant differences established between *Ace* and *White Star* on one hand and the most valued brand *Iwisa* on the other, further suggest that brand awareness is not the only level of brand knowledge that can influence low-income consumers' perceived risk and product preference. Brand familiarity (a higher level of brand knowledge) occurs when individuals have tangible experience with a product or brand, and could explain the greater value associated with *Iwisa* over the other national brands, despite price advantages. The tendency for brand familiarity to moderate the price-sensitivity of low-income consumers is in line with the research of Roa and Monroe (1999; 1988), and corroborated by Grewal *et al.* (1998). The influence of consumers' inferences regarding product quality, aversion to loss, brand awareness and familiarity illustrate the role of price and brand as signals of risk in low-income consumer decision-making.

### **7.3.3. Price and brand signal quality**

The role of price and brand as signals of quality is explained through the greater importance of brand, versus price, as perceived by low-income consumers, and can be explained through the concepts of quality inferences and credibility. The role of brand names as predictive cues

of product performance and quality is discussed in the literature review (Grace and O’Cass, 2002; Janiszewski and Van Osselaer, 2000). The fact that brands are signals of product quality enable low-income consumers to be both price-sensitive and quality-conscious, relying more on brand to predict quality. In this way, brands having associations with consistent quality may have indirectly lowered consumers’ perceived risk and their aversion to loss, and positively influenced their purchase intention for *Iwisa* over the other familiar brands of *White Star* and *Ace*.

Price–quality inferences – occurring when consumers’ perceived quality of a product offering is related to its price – are also associated with the role of price and brand in signalling quality to low-income consumers. The tendency for respondents to have higher purchase probabilities for certain brands at higher prices suggests that the brand effect associated with brand–quality inferences is also enhanced by higher prices.

The concept of brand credibility (see 3.2.2.3) is also discussed in order to explain the role of price and brand in low-income consumers’ decision-making process. As discussed by Baek *et al.* (2010) and supported by Erdem and Swait (2007; 1994), consumers associate perceived credibility with assured quality and may use this information to reduce uncertainty, lower perceived risk and increase purchase probability. Brand credibility and price–quality inferences as symbols of consistent quality highlight the importance of low-income consumers’ quality perceptions in lowering perceived risks and increasing purchase intention.

The argument that low-income consumers are quality-conscious and use brand and price as signals of product quality, is in line with the research of Jeevananda (2011) who discussed consumers’ perceived quality of products as the major determinant of brand choice, with customers choosing branded products that were perceived as providing consistent satisfactory quality. In light of the current research findings, *Iwisa* was thus considered as the brand providing the most consistent satisfactory quality, and possibly symbolic value, as will be discussed in the following section.

The conclusion that brands can be used by consumers as signals of product quality supports the research of Janiszewski and Osselaer (2000) as discussed in the review of literature. Furthermore, as suggested by Roa and Monroe (1989), Monroe and Krishnan (1985) and Bristow *et al.* (2002), the usefulness of price as a signal for quality may be enhanced with the presence of a brand. This is also supported by the current results in the unique BOP market segment.

#### **7.3.4. Price and brand signal symbolic value**

Beyond quality inferences associated with the role of price and brand, the researcher concludes that these two cues may also have symbolic value for low-income consumers. Applying the conclusions of Grace and O'Cass (2000) and Keller (1993) to the BOP market segment, the influence of aspiration on low-income consumers' decision-making was also considered.

Despite falling into the FMCG category and representing a staple food for the majority of the BOP in South Africa, the researcher proposes that maize meal may serve more than utilitarian needs. As discussed by Alimen and Cerit (2010), consumers are driven by different needs, which in turn drive the satisfaction of these needs through different products and brands. In this way, consumers' needs are linked to the symbolic and functional positioning of brands where functional brands may satisfy practical and utilitarian needs while symbolic brands may satisfy needs of self-expression, prestige and status (Bhat and Reddy, 1998). The aspirational value of brand (and linked to quality inferences) may also be attributed to the significant role of brand in the decision-making process of low-income consumers.

The role of low-income consumers' aspirations on their decision-making process is demonstrated by the high utility which respondents associated with *Iwisa*, as well as by the lack of significant differences between *White Star* and *Ace* although they were all established, recognised brands, and according to SAARF (2013) were most bought brands in South Africa.

The research conclusions were developed around the different roles that price and brand play in low-income consumer decision-making as illustrated in Figure 6.1. The research results, supported by a review of extant literature, were used to identify and expound on these different roles as signals of risk, quality, and symbolic value. Greater brand knowledge, particularly brand familiarity, greater levels of perceived quality and credibility associated with the brand, and any symbolic value that low-income consumers may also attach to certain brands are argued to reduce individuals' levels of perceived risk of a specific brand, and increase the purchase probability. Similarly, price and brand are argued to signal symbolic value that meets low-income consumers' aspirational needs, even in the FMCG category of maize meal. Ultimately, the current study concludes that price and brand are interdependent cues that play dynamic roles in the decision-making process of people in the BOP, providing resources for managers to attract, satisfy and retain low-income consumers.

#### **7.4. MANAGERIAL RECOMMENDATIONS**

This section outlines key guidelines and strategies for marketers to consider when operating in the BOP market segment. Based on the conclusions of the study, the researcher discusses the significance of and the opportunity that lies in the BOP, the importance of pricing carefully and competitively, the effectiveness of value-based strategies, and the role and value of brand in this market.

##### **7.4.1. Consider the BOP**

The research identified various roles that price and brand can play in low-income consumer decision-making which are influenced by individuals' aspirations, and by trade-offs between product quality, affordability and brand familiarity. The secondary research conducted as part of the marketing research process highlighted the socio-economic significance of the BOP, as well as the scope and magnitude of this market segment, particularly in South Africa. The economic significance of the global BOP market segment is estimated at four billion

potential consumers with an aggregated gross domestic product of over USD 12.5 trillion, highlighting the opportunities for firms to succeed in this market segment (Sridharan and Viswanathan, 2008; Moore, 2006).

Despite facing challenges, the vast majority of low-income consumers in this market segment were found to have disposable income that they were willing to spend on quality products at affordable and not necessarily the lowest prices. The first managerial recommendation (supported by Moore 2006) recognises that the BOP is a viable and potentially profitable opportunity for firms to consider. The researcher suggests that this market segment offers firms who face growingly saturated market segments and increasing competition, a vast opportunity for market expansion or penetration.

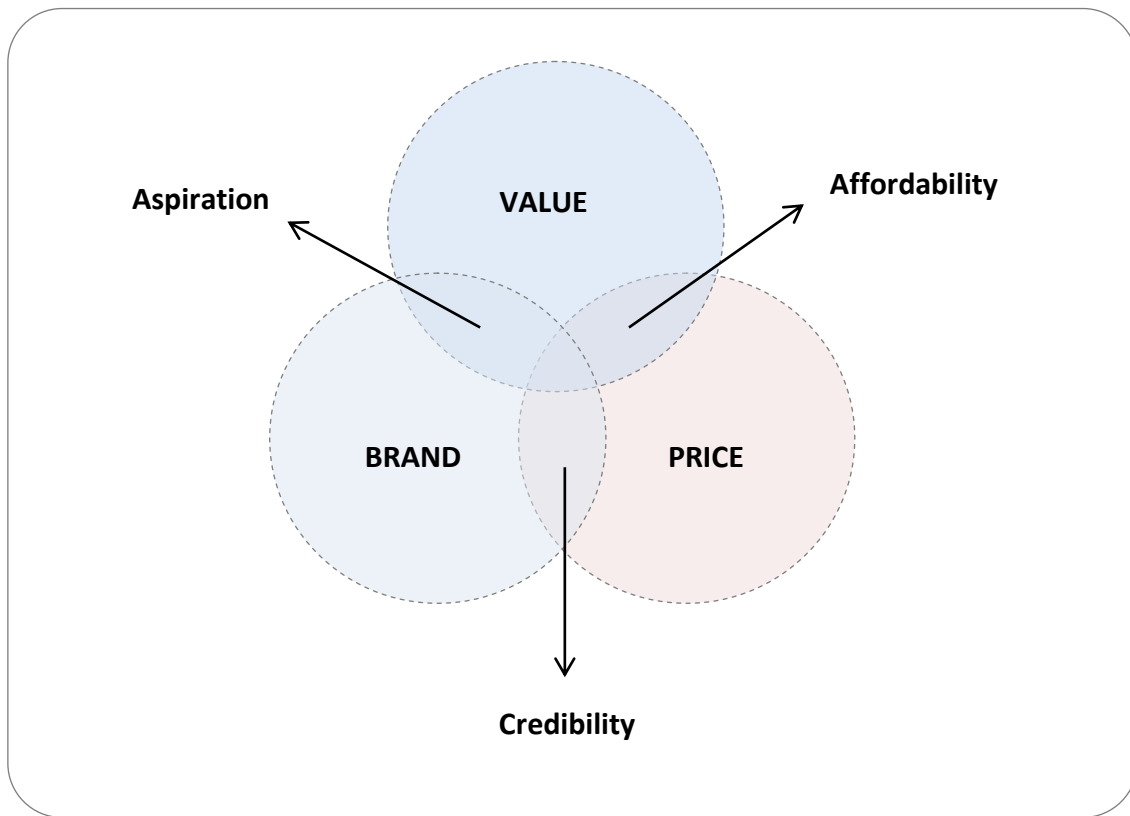
The significant roles that brand and price play in the purchase decision of low-income consumers have certain implications. Although operating in a market with restrictions on income, marketers targeting the BOP market segment must realise the importance of building a strong, reliable, credible and quality brand in order to attract and retain consumers. The return on this investment in brand, in light of the results of this study, should ensure sustained sales and profits, and decrease the chance of switching.

#### **7.4.2. Promote credibility, affordability and aspiration**

The current study found that price and brand have dual and interrelated roles in low-income consumers' decision-making in the context of the maize meal category. As discussed, marketers should use price and brand in order to build value propositions that attract, satisfy and retain consumers.

Price and brand were confirmed as interdependent cues that low-income consumers use to estimate value associated with different alternatives in the purchase situation. The predicted relationships between price, brand and value are illustrated in Figure 7.2.





**Figure 7.2: Building value propositions for the BOP**

These different relationships allow marketers to communicate different value propositions to consumers. Value and brand can communicate aspiration; brand and price can communicate credibility; and price and value can communicate affordability. As discussed in the research findings, consumers (particularly those with limited income) use affordability, credibility and aspirations as important considerations when evaluating available alternatives. Marketers and brand managers operating in the BOP market segment are advised to build value propositions through integrated marketing communication strategies at the intersection of price, brand and value, thus communicating affordability, credibility and aspiration. Firms that are successful in building product offerings in this “sweet spot” will be rewarded with greater market share, higher resistance to switching and sustainable profits. Each of the three elements of the strategy to attract, satisfy and retain low-income consumers is discussed independently as follows.

#### 6.4.1.1. Price strategically

As discussed in the review of literature, price positioning is one of the basic elements of marketing and retail strategy (Ofir *et al.*, 2008). From the firm's perspective, pricing requires an accurate evaluation of the costs associated with producing a product as well as a prediction of the targeted consumers' willingness and ability to pay for that product. With the current study's specific focus on low-income consumers, the role of price was even more significant.

Literature suggests that price is a multidimensional construct (see 3.2.1.1) perceived by consumers as an indicator of both quality and sacrifice (Bornemann and Homburg, 2011). This study found that low-income consumers used price as a measure of affordability and credibility, as well as an indicator of product quality. These consumers were seen to be relatively price-sensitive but were not driven solely by lowest shelf prices. The tendency for individuals to choose higher-priced products, despite the availability of cheaper alternatives, is attributed to the price-quality inferences consumers draw from prices, where higher prices are perceived as indicative of better quality.

Low-income consumers' dynamic perception of the nature and meaning of price has various implications for marketers developing strategies and positioning products in the BOP market segment. With regard to pricing strategies, firms considering low-price strategies, particularly penetration strategies that aim to undercut competitors, are advised to be careful not to position their brand too cheaply when compared to competing brands in the category. Although lower prices relative to competitors offer value to low-income consumers in terms of affordability, owing to the credibility and quality associations linked with price, the lower prices may inadvertently lower consumers' overall perceived value by increasing their perceived risk and decreasing perceived quality. Similarly, the effectiveness of positioning strategies based solely on price, such as everyday-low-pricing strategies, is also questioned. These price-orientated strategies may fail to communicate quality, trust and credibility to

consumers through low prices alone, and may thus be counterproductive by actually reducing demand.

Instead, managers are advised to build positioning strategies by pricing competitively. In light of the possible negative consequences of lowest-price strategies discussed, marketers targeting the BOP are encouraged to use promotional pricing to add value and generate demand. Promotions allow for products with higher prices to still be associated with higher quality; however, value is created for consumers where they are seen to save on the special offer. In this way, both perceived savings and credibility are communicated to potential consumers, encouraging purchase. If marketers are planning to launch new products in the BOP market segment, promotional pricing strategies offering discounts off the retail price may also help to encourage low-income consumers into trial use of a product. In-store banners, posters, shelf and product stickers and end-of-aisle displays, as well as promotional inserts and flyers, are effective ways of communicating promotions to low-income consumers.

#### **6.4.1.2. Consider value-based strategies**

Drawing on the research results, price and brand are cues used by low-income consumers to estimate and evaluate value of available alternatives, revealing them to be largely value-driven. Despite limited income, people in the BOP market segment look to satisfy their needs with product offerings that provide value for money, consistent quality and perhaps symbolic value. As discussed by Pitta *et al.* (2008), the guarantee of quality is particularly significant as the financial loss from an underperforming product is more detrimental to low-income consumers with limited resources.

Marketers must employ value-based strategies when building the value propositions that aim to increase perceived value for consumers by balancing brand and price-related inferences, in order to be most effective in this growingly value-conscious environment (Grewal *et al.*, 1998). Not disregarding the price-sensitivity of people in this market segment, the research

conclusions suggest a value-based strategy that balances consistent and reliable quality with affordable prices. The findings that low-income consumers will choose certain brands, despite higher prices, suggest that such strategies are possible and have the potential to be effective in this unique market segment.

The findings of the research suggest that price and brand, through brand familiarity, credibility and inferences, could signal quality to low-income consumers. Managers are advised to develop value-based strategies that enhance this role of price and brand, by using integrated marketing communication strategies. Some practical strategies could include inducing trial use of the brand by offering free promotional products in micro-packages (one serving), bundled with other frequently bought products such as canned fish and chicken. Inducing trials of new or existing brands is important for allowing low-income consumers to experience the brand and build positive brand associations, while overcoming the perceived risk of purchasing an unfamiliar brand. Interactive communication strategies such as live demonstrations in community centres or sponsoring of community events such as church bazaars, are also ways of introducing new or existing products to low-income consumers and building positive brand familiarity and credibility, while reducing individuals' perceived risk.

#### **6.4.1.3. Leverage brand**

Considering the potential effectiveness of value-based strategies, the higher perceived importance associated with the attribute of brand over price, suggests that marketers must leverage brand in order to grow market share and satisfy consumers. The various roles of price and brand further promote the use of branding strategies and considering price, in effectively and successfully targeting individuals in the low-income market segment.

The roles of price and brand identified in the research conclusions are supported by existing literature. As discussed by Erdem *et al.* (2002), brands play many roles in affecting consumer choice behaviour in the presence of price, particularly in light of consumer uncertainty about different product attributes and/or benefits. Chen *et al.* (2012) maintain that

brand management is the differentiation strategy with the most promise, where brand and price help to differentiate products from others in the same category, and provide both utilitarian and symbolic value for consumers through brand associations (Alimen and Cerit, 2010).

The role of brand in low-income consumers' decision-making encourages firms to invest in brand strategies that promote quality, consistency and affordability. The return on this investment will be felt in growing market share, increased repeat purchase and lower propensity of brand switching, even in response to lower prices. The ability of brand to offset price-sensitivity of low-income consumers, as seen in the research findings, is intrinsic to the success of firms in this market segment, as it allows for profit margins to be met.

Brand associations are powerful drivers of consumer perceptions, which can influence the decision-making process. It has been argued that low-income consumers attach certain economic and symbolic value to products, inferred from associations and experience with the brand, increasing the perceived quality and thus the overall value of the product. Brand-quality associations can be used by firms to gain competitive advantage in the market and leverage through brand extensions in order to generate demand for new products.

Further implications of leveraging brand lie in brand extensions. Brand extensions should be successful in this market segment as the positive associations related to familiar products are transferred to new products under the same brand (Aaker and Keller, 1990; Liu *et al.*, 2010; Volckner and Sattler, 2006). New product developments under the same brand can build positive associations of trust and quality which extend from the existing brand to the new product. The effectiveness of product extensions within this low-income market goes beyond the scope of this study, yet offers potential for future research in understanding the decision-buying process of individuals in this market segment, and the effects of price-quality and brand familiarity inferences. However, the poor response to the hypothetical yet familiar

brand *Ritebrand* does warn marketers against merely producing extensions, without integrating other marketing elements.

## **7.5. POSSIBLE LIMITATIONS OF THE STUDY**

The first limitation of this study is attributed to the fact respondents were not asked to use their own money. Although the use of CBC did create a realistic decision scenario that accounted for multi-attribute decision-making and trade-offs, respondents were not asked to sacrifice their own money. If consumers were faced with a decision that relied on their own personal income, issues of risk aversion, price–quality inferences and brand familiarity may have been more influential in the decision-buying process, and could have affected the results. Further studies investigating the effect of price and brands on low-income consumers' product choice are advised to determine the possible effect of this bias by asking respondents to make choices based on real monetary values and sacrifices.

Secondly, although thorough qualitative research was conducted when choosing the maize meal category as the product element of the CBC, the results cannot be generalised across different product categories. Further studies using different product categories and brands, both familiar and hypothetical are advised to address this possible limitation of the current study.

Thirdly, possible limitations could be the result of language issues associated with respondents whose first language is not English. Although multi-lingual professional fieldworkers were employed to conduct the fieldwork in an attempt to minimise this possible bias, understanding of the respondents may have been influenced, thus influencing the results.

Fourthly, the realised sample was selected using non-probability convenience sampling, compromising the reliability and representivity of the sample. In turn, the inferences made are not truly generalisable to the target population, again limiting the scope and reliability of the results and recommendations. Researchers are encouraged to conduct more

comprehensive studies using probability sampling of a similar target population in order to support or extend the findings of the current study.

## **7.6. FUTURE RESEARCH OPPORTUNITIES**

As discussed by Bakken and Frazier (2006), the key innovation in conjoint methods is the use of experimental design to construct hypothetical alternatives in order to estimate the importance of each of the attributes using statistical methods. Following the current study, conjoint analysis has been found to be an effective method of choice elicitation within the low-income market segment. The decompositional approach (Eggers and Sattler, 2011; Bakken and Frazier 2006; Haaijer and Wedel, 2003) to measuring low-income consumers' product preference minimises the possible bias associated with attitudinal measurement (Rühle *et al.*, 2012; Foxall *et al.*, 2011; Zeithmahl, 2000; Foxall, 1997; Dick and Basu, 1994; Wicker, 1969), particularly in light of possible literacy and numeracy challenges in the BOP market segment that may bias attitudinal measurement scales used in practice. Future research opportunities thus lie in applying CBC to other research questions surrounding the BOP market segment.

In light of the potential influence of perceived risk on low-income consumers' product choice, further research into what can promote or lower perceived risk would be appropriate. The impact of promotions on low-income consumer choice is also an opportunity for future research, using CBC. Promotions have been found to increase the price-sensitivity of consumers (Mela *et al.*, 1997); however they are used extensively in the low-income market segment. Because of the potential influence of low-income consumers' perceived risk associated with unusually low prices in a purchase decision, the possible moderating effect of promotions to reduce this risk should be explored (Hamlin *et al.*, 2012). Findings from such a study would contribute to more effective and targeted promotional strategies for firms currently operating, or considering operating in the low-income market segment.

In terms of identifying the remaining gaps in understanding of this market segment's decision-buying process, researchers are encouraged to assess the effect of other important variables such as language, education and literacy on low-income consumers' choice. These wider focuses should contribute to a greater understanding of this largely misunderstood market segment, and provide richer information from which to build a more comprehensive and useful consumer profile. This profile can then be used in marketing and product development functions to facilitate better satisfaction of these consumers' unique needs.

Future research opportunities also include replicating the current study with different samples in South Africa. Different communities and cultures may have different decision-making tactics and preferences. Extending this study to areas such as KZN, and with various product categories, could highlight possible differences and similarities in the effect of price and brand on low-income consumers' decision-making.

## **7.7. RECONCILIATION OF OBJECTIVES**

The current study employed the scientific method and the marketing research process (Chapter 5) to contribute to the body of knowledge surrounding consumer behaviour and the decision-buying process of individuals categorised in the largely untapped and under-served BOP market segment. Secondary research followed a review of literature surrounding consumer behaviour and decision-buying behaviour (Chapter 2), the concepts of price and brand and their effect on this behaviour (Chapter 3), applied in the context of the BOP and low-income consumers (Chapter 4). The review of literature identified key gaps in understanding regarding low-income consumers' decision-making process, guiding the research opportunity to be formulated in the problem statement.

As discussed, this study was undertaken **to assess the perceived importance of price and brand in low-income consumers' decision-making process, and thereby examine the effect of different prices and brands on low-income consumers' product preference.** In order to address the problem statement and derived research objectives, a CBC analysis and



related questionnaire were conducted over a three-week period during 2013. A total of 303 respondents, resulting in 209 completed questionnaires, were approached by fieldworkers in informal settlements in Gauteng and assisted through an electronic questionnaire. Data collection was followed by data analysis and presentation of results in Chapter 6. The hierarchical Bayes procedure was used to transform the raw data from the CBC into utilities associated with price and brand, at their respective levels. The MNL model derived the purchase probability of different price–brand combinations that were used to simulate market conditions, thereby examining the effect of different sets of alternatives on low-income consumers' product preference.

The research findings determined that brand was perceived as more important, attributing to 65 per cent of low-income consumers' decision-making process, as opposed to the 35 per cent attributed to price. Furthermore, while the perceived utility associated with price was downward sloping where higher prices had lower utility, no significant differences were found between R24.99 and R28.99 with little change from R18.99, suggesting that low-income consumers have dynamic perceptions of price, and are willing to pay higher prices for certain brands.

In the case of the current study, *Iwisa* had the highest perceived utility, with individuals indicating that they would pay higher prices for *Iwisa*, over cheaper available alternatives.. No significant differences were found between the utilities of *White Star* and *Ace*, suggesting that low-income consumers had no significant preference for either option, without the influence of price. The poor performance and associated utility of the unfamiliar and hypothetical brands *Mnandi* and *Ritebrand* suggested that brand name and its associations may play complex roles in low-income consumers' decision-making process.

The research conclusions drawn from secondary research, identified various roles that brand and price play in low-income consumers' decision-making process. As signals of risk, quality and symbolic value, low-income consumers' perceptions of price and brand are further

influenced by individuals' aversion to loss, and the desire to satisfy their aspirations. It is proposed that varying levels of brand knowledge, brand quality and credibility as well as symbolic value and quality attached to different brands and prices as perceived by low-income consumers, influence both individuals' aversion to loss and their aspirational desires, and thus influence the decision-making process. As supported by theory, it was found that price and price–quality inferences, brand familiarity, brand–quality inferences, psychological factors and those surrounding the purchase context have influence on the decision-making process of individuals in this market segment. These conclusions achieved the objectives of the study and provided information from which recommendations could be formulated.

Managerial recommendations highlighted key guidelines and strategies that firms operating in or considering operating in the BOP should consider. Firstly, the secondary research emphasised the significant opportunity that the BOP holds for firms willing to invest in this unique and largely under-served market segment. Opportunity comes in the form of a large market segment with few competitors, as well as the ability to contribute to the socio-economic upliftment of communities within this segment by offering effective value propositions.

In order to build effective value propositions, the second managerial recommendation promoted value propositions that communicate credibility, affordability and aspiration. Price, value and brand were identified as cues that marketers could use to create such value propositions. These were discussed independently.

In the case of price, marketers are advised to develop pricing strategies competitively, and to avoid strategies that could increase the perceived risk or lower the perceived quality and value associated with the brand, as this would negatively affect purchase probability and decrease demand. The research conclusions of the study suggest that although low-income consumers are price-sensitive, they are also driven by perceptions of quality, credibility and symbolic value which can mediate their price-sensitivity.

In the case of value, it is suggested that marketers and brand managers employ value-based strategies when developing the value propositions to meet the needs of low-income consumers. Low-income consumers are found to be value-conscious, making trade-offs between lower prices and greater quality when considering alternatives, even in the FMCG category. The significant role of brand in the presence of price emphasised the last element of effective value propositions that would leverage brand. Managers operating in the BOP should invest in brand strategies to promote good quality, consistent and affordable product offerings. The return on this investment in brand development will be realised in the form of greater market share, and lowered chance of switching, despite lower prices and the possibility of brand extensions.

The limitations and future research opportunities were also considered, highlighting possible bias that may affect the results, and further areas where greater understanding of low-income consumers' decision-making process is needed. Through the marketing research process the research objectives were addressed. The conclusions of the study indicate that price and brand play largely interdependent roles low-income consumers' decision-making process. Managers are challenged to find a balance between perceived quality and reliability and affordable price, in order to operate successfully in the low-income market and offer effective value propositions that provide customer satisfaction, and allow for sustained sales and profits for the firm.

## **7.8. CONCLUSION**

As articulated by D'Andrea *et al.* (2006), the extant literature surrounding low-income consumers' decision-making and product preference does not address all the unique elements of this significant yet largely under-served market segment, justifying further research into the role of price and brand in low-income consumers' decision-making. The purpose of this research was driven by the gap in understanding surrounding low-income consumers, and the scope and scale of this market segment globally and in South Africa. The study responded to

misconceptions and contradictions found in literature regarding the low-income market segment, which tended to assume a one-dimensional decision-making process based largely on price.

Understanding the different roles that price and brand conjointly play in the purchase decision process required an understanding of the information the buyer brought into the purchase situation. This study, following the marketing research process, took a decompositional approach to assessing the effect of different cues, namely price and brand, on consumers' evaluation of alternatives by re-creating choice situations through the choice-based conjoint.

The research results showed that low-income consumers perceived brand, in the maize meal category, to be more important in the decision-making process and had dynamic preferences regarding different prices and brands. Although lower prices did have high perceived utilities, the price-sensitivity of low-income consumers was seen to be less influential at lower price ranges, suggesting the influence of brand and brand associations on their evaluation of alternatives. Familiar brands were seen to positively influence low-income consumers' purchase probability through reducing perceived risk, further enhanced by brand credibility indicating consistent quality and increasing purchase intention. Unfamiliar brands were perceived as having low levels of utility and contributed to low-income consumers perceiving these alternatives as risky, with fuzzy and difficult-to-determine quality inferences.

The research conclusions, building on the results and review of existing literature, identified different roles that brand and price play in low-income consumers' decision-making process. As signals for risk, quality and symbolic value, price and brand are seen as interrelated cues that are used by low-income consumers to estimate perceived risk and benefits associated with different offerings, when evaluating alternatives. The research found that low-income consumers are not wholly price-sensitive, but perceive price and brand as indicators of affordability, as well as being associated with quality, credibility and consumer aspirations.

Managerial recommendations were made, arguing that despite operating in a market segment with severe income restrictions, brand and brand strategies may influence low-income consumers' decision-making, in the presence of price. Brands help differentiate products from others in the same category. Together with prices, they are a medium through which firms can communicate unique value to consumers in order to encourage purchase. The role of brands to differentiate similar, even relatively homogenous products, in the same category is also seen in the maize meal category in South Africa, although to varying degrees.

The willingness of low-income consumers to pay higher prices for familiar, credible and aspirational brands should motivate those firms involved in or considering involvement in this large market segment, to invest in branding strategies that promote such brand qualities. Although price-sensitivity in this market segment is a real and significant challenge to firms' profit margins, the results of this study suggest that they are not impossible to overcome. Value propositions focused on quality and affordability, while recognising the aspirational needs of this unique market segment, may be effective in attracting, satisfying and retaining customers. Owing to the magnitude of this market segment (estimated to be USD429 billion in Africa, and a third of consumers in South Africa alone), the investment in such strategies should reward firms with a strong market share and fair mark-up strategies, that will provide these under-served consumers with a value-driven product, while meeting firms' profit objectives. In this way, the vision of the BOP proposition that firms can do some good by contributing to socio-economic empowerment, as well as satisfying profit objectives can be realised.

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## APPENDIX A: Hypothetical brands



## APPENDIX B: Electronic questionnaire

FOR OFFICIAL USE:

**Interviewer:**

---

**Questionnaire number**

---

**What device are you using to conduct the questionnaire?**

☐ Laptop computer

☐ Desktop computer

☐ Ipad/ Tablet

☐ Smartphone

☐ Other: Please specify

---

**Proceed to next page**

14%

**Thank you for participating in this independent study.**

**Have you ever bought super maize meal before?**

☐ Yes

☐ No

---

**Which of these do you have in the household where you live?**

☐ Microwave

☐ Fridge/ Freezer

☐ Washing machine

☐ TV set

☐ Hot running water

☐ Home telephone

☐ Car

☐ Credit facility/ accounts

☐ Tumble dryer

---

**Proceed to next page**

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29%

Imagine that you are at the shops looking to buy maize. You come to the shelf and see these four products in 5 kg packages, at these prices.



Which option do you like most?

Which option do you like least?

Would you actually buy your most liked choice if it was available?

- ☐ Yes
- ☐ No

Up to what level of education have you completed?

[Proceed to next page](#)

57%

Imagine that you are at the shops looking to buy maize. You come to the shelf and see these four products in 5 kg packages, at these prices.



Which option do you like most?

Which option do you like least?

Would you actually buy your most liked choice if it was available?

- ☐ Yes
- ☐ No

What is your home language?

- ☐ Sesotho
- ☐ isiZulu
- ☐ Afrikaans
- ☐ English
- ☐ isiNdebele
- ☐ isiXhosa
- ☐ Setswana
- ☐ siSwati
- ☐ Tshivenda
- ☐ Xitsonga
- ☐ Other: Specify

**Proceed to next page**

71%

Imagine that you are at the shops looking to buy maize. You come to the shelf and see these four products in 5 kg packages, at these prices.



Which option do you like most?



Which option do you like least?



Would you actually buy your most liked choice if it was available?

- ☐ Yes  
☐ No

How old are you in years?

Where do you usually buy maize meal?

- ☐ Shoprite  
☐ U-Save  
☐ Pick n Pay  
☐ Game  
☐ Makro  
☐ Checkers  
☐ Local spaza shop  
☐ Other: Specify

**Proceed to next page**

86%

Imagine that you are at the shops looking to buy maize. You come to the shelf and see these four products in 5 kg packages, at these prices.



Which option do you like most?



Which option do you like least?



Would you actually buy your most liked choice if it was available?

- ☐ Yes
- ☐ No

What is your family's average monthly income?

Proceed to next page



100%

Imagine that you are at the shops looking to buy maize. You come to the shelf and see these four products in 5 kg packages, at these prices.



Which option do you like most?

Which option do you like least?

Would you actually buy your most liked choice if it was available?

- ☐ Yes  
☐ No

Which brand do you usually purchase?

- ☐ Ace  
☐ White Star  
☐ Iwisa  
☐ Laduma  
☐ Impala  
☐ Other: Specify

Listen to the following statements. To what extent do you agree that this is true for you?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I do not like trying brands I have not seen before	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have favourite brands I buy often	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my opinion, higher prices mean better quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better quality is better than a lower price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always look at the price of brands when I go shopping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always buy the best that I can afford	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing to make an effort to search for my favourite brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I usually choose lower priced brands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can usually judge the quality of a brand from its price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I compare prices of at least a few brands before I choose one	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important to me to buy high quality products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



**How often do you purchase maize meal?**

- ☐ Once a month
- ☐ Twice a month
- ☐ Three times a month
- ☒ Four times a month
- ☐ More than four times a month

**Which package size do you usually buy?**

- ☐ 2.5 kg
- ☐ 5 kg
- ☐ 10 kg

**Listen to the following statements. To what extent do you agree that this is true for you?**

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I usually buy all my food at one store	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my opinion, lower prices mean lower quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always buy my favourite brand when I go grocery shopping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usually, I care a lot about which particular grocery store I shop at	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not like trying brands that are not familiar to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I buy products that are good quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I go to the same stores each time I go shopping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a favourite grocery store that I always shop at	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usually, I care a lot about which particular brand I buy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price is the most important factor when I am choosing a brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not like trying brands I have not heard about before	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**What is your cell phone number?**

**Finish survey**

## APPENDIX C: Declaration of language and technical care

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2 December 2013

TO WHOM IT MAY CONCERN:

I am a professional English language editor, accredited by the Professional Editors' Group (PEG).

I hereby confirm that on 2 December 2013, I completed a language edit of a master's thesis, written by

**MEREDITH ALLAN**

entitled

**PRICE versus BRAND**

*Assessing the role of price and brand in  
low-income consumers' decision-making*



**Ruth Coetzee (Mrs)**